WPI transformations

THE ALUMNI MAGAZINE OF WORCESTER POLYTECHNIC INSTITUTE **FALL 2011**

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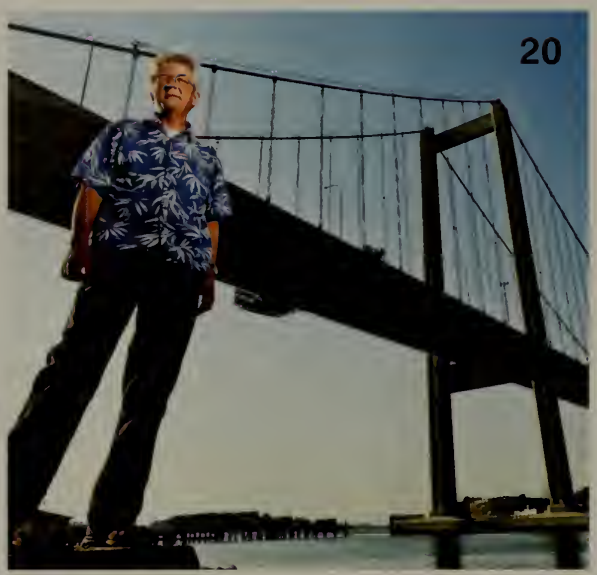
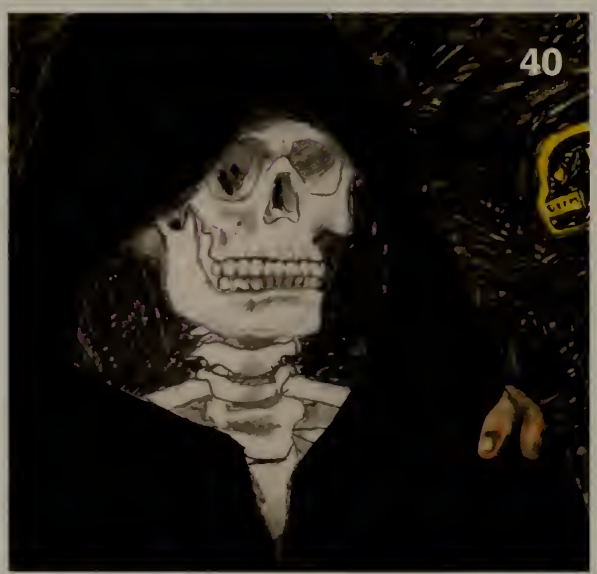
contents





features

20

In Perfect Balance

Like the stunning bridges he builds, Mark Ketchum '75 knows how to balance stress, durability, and beauty.

BY DAVID ENDERS

26

POWER ▶ **The Mayor of Cool**

Naveen Selvadurai '02, '04 (MS CS) and his business partner, Dennis Crowley, may have created the Internet's next big thing, foursquare, a social media site that mixes geo-tagging, urban exploration, and socializing.

BY MICHAEL BLANDING

34

Shaking Whispers from the Walls

Like a science-center twister, Nina Simon '03 is shaking up the museum world, using creativity, passion, and some good ol' WPI problem solving to make museums more fun.

BY KATE SILVER

40

A Century of Do-Gooders

Your alumni magazine goes undercover to bring you the inside story of the secret Skull society, which recently celebrated its 100th anniversary of stealthily moving through the WPI campus doing nice things for others.

BY W. POLLY TEKNICK

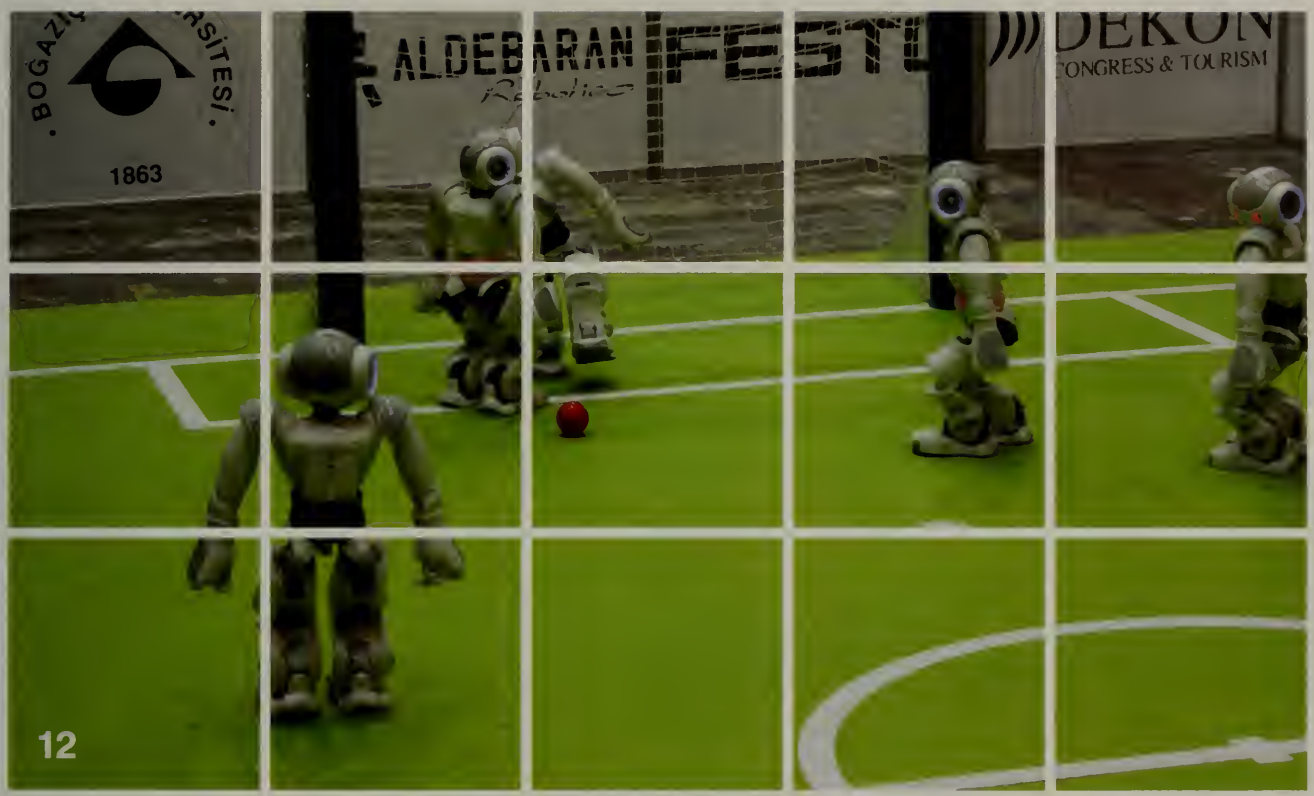
46

Mastering the Course

Mark Mungeam '83 charted his own course when it came to his profession—which is the same approach he takes when designing a world-class golf course.

BY JOHN SHAW

Cover Illustration by Paul Wearing



departments

07
WPIndex
Forty percent less fat, 47 percent more Vitamin A.

11
Message From the President

12
WΠ
Poems Found . . . Robots Scoring . . . Lessons Learned.

52
News from Higgins House
From Homecoming to award winners, WPI alumni are on the move.

58
Advancing WPI
Robert Foisie '56 and Priscilla and George Messenger Jr. '51 make transformative gifts to WPI's undergraduate scholarships.

60
Class Notes
Octogenarians are studying French, motorcycling 1,600 miles, and flying gliders—these are just a few of the 500 alumni who sent updates this issue.

86
Puzzle Corner
What happens when you cut a Sudoku diagonally? Solve Professor Heineman's Sujiken puzzle and find out. Also, the *Awkward Engineer by* Sam Feller '07.

87
Here to There
Albert Soloway '48 looks back at his 30 years in higher education and identifies some troubling trends.

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Not One But Legion

WORCESTER POLYTECHNIC INSTITUTE
VOL. 108, NO. 1

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The Class Note is an under appreciated literary form. Consider this one sent to Harvard in 1847 in response to a request for a career update:

"I don't know whether mine is a profession, or a trade, or what not. It is not yet learned, and in every instance has been practised before being studied...It is not one but legion. I will give you some of the monster's heads. I am a Schoolmaster—a Private Tutor, a Surveyor...a Gardener, a Mason, a Day-Laborer, a Pencil-Maker, a Glass-paper Maker, a Writer, and sometimes a Poetaster....For the last two or three years I have lived in Concord woods alone, something more than a mile from any neighbor, in a house built entirely by myself. —Henry David Thoreau '37

Thoreau's note is often cited because of the literary masterpiece that was to come from those Concord woods. But as author Henry Petroski points out in his insightful book, *The Pencil*, Thoreau's class note reveals even more. For instance, the profession that Thoreau practices but struggles to describe, says Petroski, is that of an engineer, which was rapidly emerging in the mid-19th century and, indeed, has a long history of being "practised before being studied."

Petroski also points out that Thoreau consistently displayed a common trait of the engineering mindset—namely, a desire to plumb a variety of subjects beyond the mechanical, as problem solving requires a unique blend of skills, not the least of which is creativity. Which brings me to this issue of *Transformations*.

As you may have noticed, we've been creatively tinkering with your alumni magazine. This issue features a new design, binding, size and editor. It also features an expanded class notes section filled with updates from a creative group of WPI graduates unafraid to plumb any subject. The first page alone sets the tone. Here, you'll find **Frank Holby '48** studying French, a language he took up at age 83; **Harvey Howell '51** confessing that he's slowed down a bit, but still finds time to pilot his glider; **David Hathaway '53** completing a 1,600-mile motorcycle trip, camping along the way in a tent borrowed from his daughter; and **George Sanderson '52** deciding it's a good time to begin studying artificial intelligence.

Lest you think the octogenarians are having all the adventures, see **Kim Schaefer '84**, who is teaching figure skating in her spare time; or **Leonard Redon '73**, deputy mayor of Rochester, N.Y., and the first African American to hold that office; or **Bruce Denson '68**, who is now pastor at the local Methodist church; or **Laura Gregory Roberts '93**, who was recently listed among the "Top 40 Under 40" by *Connecticut Magazine*; or **Barbara Doyle Atkins '94** who became a bone marrow donor this year.

In all, you'll find businesses being launched, books being written, classes being taught, music being performed, and exotic, faraway places being explored. You'll also find a sincere passion for helping others reach their potential. And, of course, you'll find an abundance of scientific, technological, entrepreneurial, and engineering accomplishments.

After a thorough read of these class notes, I came away thinking that Thoreau would have been very attracted to WPI if it had existed back in 1833 when he was a freshman. Petroksi's book provides some evidence to support the hunch, as he reports that the frugal Thoreau actually had business cards printed late in life that listed his occupation as civil engineer. But it's Thoreau's criticism of education, and his alma mater in particular, that provides the most convincing evidence. Among the things Thoreau took issue with was his professors' over-reliance upon theory. As he writes in *Walden*: "To my astonishment I was informed upon leaving college that I had studied navigation!—why, if I had taken one turn down the harbor I should have known more about it."

What you'll find in this issue of *Transformations* is a collection of WPI graduates who won't hesitate to take that one turn toward the harbor, which invariably leads to uncharted waters, and, of course, new discoveries and new knowledge. Now, expand that idea, not by one, but by a legion of men and women who share that spirit, and you have the makings of a very interesting alumni magazine—which is just what we intend to deliver to you.

JAMES WOLKEN, EDITOR

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Number of incoming freshmen in 1911 that set a WPI record for class size: 154

Number of incoming freshmen in 2011 that set a WPI record for class size: 1,009

Percentage difference of Vitamin A found in goat milk compared to cow milk: +47

Percentage difference in fat found in goat cheese compared to cow cheese: –40

Number of "secret societies" at Yale University: 10

Number of "secret societies" at WPI: 1

Odds that a U.S. couple met via social media: 1 in 5

Odds that a divorcing U.S. couple will list Facebook among the causes of their break up: 1 in 5

Percentage of American adults who used the Internet in 2010: 79

Percentage of American adults who used social media: 47

Total revenue generated by WPI's Corporate & Professional Education unit in 2005: $2.8 million

In 2011: $9.7 million

Percentage of current WPI employees who are female: 53

Percentage of current WPI students who are female: 30

Estimated number of museums in the United States: 17,500

Median annual attendance in 2009 at a U.S. art museum: 44,878

Median annual attendance in 2009 at a U.S. science/technology museum: 357,103

Grade WPI received for sustainability in 2005 from the Sustainable Endowment Institute: D-

Grade WPI received in 2011: A-

Number of IQP and MQP reports downloaded during 2009 from Gordon Library: 240,000

Percentage of undergraduate applicants admitted into WPI in 2005: 83

In 2011: 57

Percentage of WPI's 2011 incoming freshmen who graduated high school with a 4.0 GPA: 44

Estimated number of bridges in the United States: 600,000

Number considered "structurally deficient" by the ASCE: 161,000

Estimated number of U.S. bridges found in "dangerous disrepair": 71,000

Amount returned to the economy for every U.S. tax dollar spent on transportation infrastructure: $1.57

Total, in dollars, of research awards WPI faculty received in 2005: $11.8 million

In 2010: $17.4 million

Number of Annual Fund phone calls from student callers to WPI alumni last year: 10,586

Record-setting total dollars raised by the WPI Annual Fund last year: $2,225,910

Estimated number of U.S. golf courses, public and private: 15,890

Estimated rounds of golf played in the U.S. last year: 475,000,000

Average greens fee in Massachusetts: $62.16

Recommended first-time gift to the WPI Annual Fund: $50

Fee for a lifetime membership to the American Goat Society: $200

The WPIndex is sponsored by the WPI Annual Fund, which has been helping WPI students succeed since 1924

A Level Playing Field

I read with a great deal of interest your very cogent articles about China in the Spring edition of *Transformations*. I would like to add a few thoughts:

Tom Friedman wrote a book called *The World is Flat*. It may be, but it is not level. Or in engineering parlance, it is not tangent to the radius of the sphere. Currently, the Chinese (as well as many other nations) enjoy a labor cost advantage, which is why I postulate that the 'world may be flat' but it is certainly not level. Here is my main point: In 1989, I was the general manager of a new joint venture located in Beijing. Contractually, the company could only pay $100 per month. Now, 22 years later (or one generation), my wife's nephew is earning $1,000 per month. Again, we engineers would say 'one order of magnitude.' If the trend continues, parity will happen in one more generation. At that point there will be no cost advantage to making things like clothes or TVs or providing call centers in China or anywhere else.

It's great that America is increasing its ties with China. But our investment should be more towards their domestic business and less aimed at things for export. Forward-looking companies are seeing this trend, and, again my opinion, "on shoring" will become more the norm as we move through the next millennium.

China is a fascinating place with intelligent, secular people. They are more like us than we might think. And contrary to what you may read in the fourth estate, China likes the U.S. and wants to emulate it in many ways. Most of China has access to television and can see what "western civilization" looks like. They are far from dogmatic communists, despite the name of the ruling party. There is more Confucius than Marx in China. As former Chinese leader Deng Xiao Ping once said, it does not matter if the cat is white or black as long as it catches the mouse. I would only caution to not get caught up in what we used to call 'China Chic.' We should recognize that their business guide is Sun Tzu's *The Art of War* and not the sappy stuff we read, like *The One Minute Manager.*

The U.S. makes up five percent of the world's population. China 22 percent. Soon, we will look across the Pacific and see ourselves, just five times bigger. Best we keep some of our production at home, no matter how mundane or routine it appears.

J. D. CATTEL '70
President Digital Control Company Clearwater, Florida

I read with great interest Susan Seligson's article about the experience of Chinese students at WPI ("Culture Shock"), particularly their participation in sports. I would like to add that Chinese students are the largest ethnic group in the WPI Badminton Club (Indians are second), and, as has happened often in the past, they have served as president and other officers of the club. While badminton is an extraordinarily fast sport at which the Chinese are very good, our students usually look upon the competition as a social occasion (as described in Susan's article), groups of friends sitting around the court chatting with the players as the shuttlecocks whiz back and forth across the net.

BLAND ADDISON, Associate Professor
Advisor to the WPI Badminton Club
Co-Director, Morocco Project Center

Off Key

Being both a WPI alumnus and a musician, I found parts of the spring 2011 edition of *Transformations* to be quite upsetting. The "Grammy for WPI" write-up was silly enough, with its trite insults at expected pop targets. But the praise over the "Digitar" project was ridiculous. Guitar-structured MIDI controllers are nothing new, in fact at least two of them are already called "Digitar." And if you can pass a differential equations class, then sheet music and tablature shouldn't be "too daunting." For crying out loud – tablature, which is already the dumbed-down version of sheet music, is just counting! The last thing the music scene needs is more shoddy guitar players with no understanding of sheet reading or theory; we're already overwhelmed with them. Yes, guitar playing "has its own learning curve," but so do all skills. If they didn't, they wouldn't be skills.

BILL MONTBLEAU '97

Transforming People

I was saddened (as I suspect many former students, faculty, and staff were) to learn of the passing of John van Alstyne, Archie McCurdy, and Roy Seaberg. "Van A" was a legend on the campus, having an extraordinary capacity to keep tremendous amounts of information in his head. He was the "go to" guy during 'Drop & Add' each quarter. He was also a great mentor and advisor.

Professor McCurdy was a good friend and teacher. I learned a great deal from him about thin film deposition, optics, and molecular-level electronics. The biggest lesson I learned from Prof. McCurdy, however, occurred when I happened upon him in the basement of Gordon Library, reading a Russian engineering text. "I didn't know you could read Russian," I said. "I can't," he replied, "but if I work hard enough, eventually I will figure it out." I never forgot that lesson, for it taught me to never shy away from even the most difficult of problems.

But perhaps the biggest impact on my life was Roy Seaberg, the director of admissions. Knowing WPI's reputation for being very selective, I assumed my chances weren't good. But Roy was very encouraging, and I will forever be grateful for his confidence in me. He challenged me to stretch my abilities and discover my talents. As a result, I worked very hard to make sure that I honored Roy's decision to accept me into WPI, and ultimately graduated with distinction.

I will always think fondly of these individuals who excelled at their jobs by going "above and beyond," and shall forever be grateful for their influence in my life.

RICHARD K. LADROGA '92
Vice President, Global Strategic Development
Doble Engineering Company

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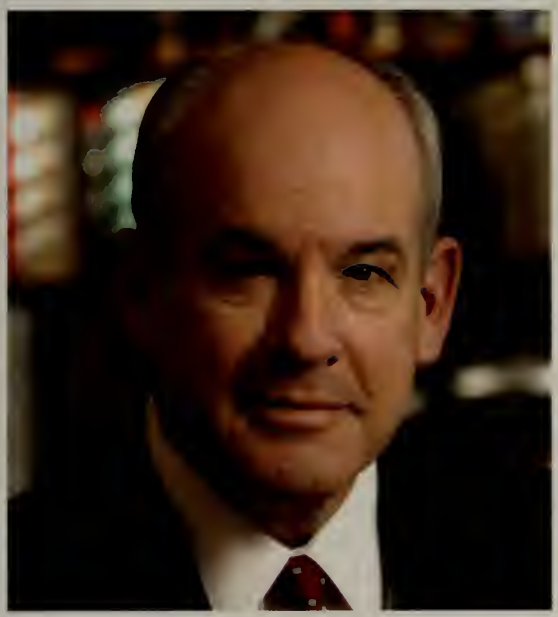


The Measure of Leadership

We hear talk in the media about the need for higher education to track and measure student outcomes. This trend is driven in large part by the rapid rise of for-profit colleges, which have brought more choices to the higher education landscape, but also more confusion as to what constitutes good value.

Assessing student outcomes has been a priority at WPI for many decades, in part because our unique project-based curriculum requires assessment far beyond traditional classroom metrics, like test scores or grades. WPI students must demonstrate the acquisition of knowledge in traditional classroom settings, and impressive amounts of it, I might add. But they must also demonstrate that they know how to apply that knowledge to real-world projects, while earning the trust and confidence of fellow project members along the way. Such hands-on, collaborative learning is a distinguishing trait of a WPI education. It's also the type of learning experience not easily captured by a numeric evaluation. Leadership does not always reveal itself in a multiple-choice question.

Though difficult to distill to a numeric value, leadership is more easily discernible when viewed through other prisms. Consider, for instance, the alumni featured in this issue of *Transformations*, which shows WPI graduates in a variety of leadership roles across a range of industries. These stories not only chronicle remarkable professional success, but also reveal that the passion for problem solving is at the heart of their work.

Whether it's Naveen Selvadurai '02, '04 (MS CS) pioneering his new geography-based approach to social media, or Mark Ketchum '75 balancing the structural and cultural pressures of a stunning bridge project, or Nina Simon '03 shaking up the whispering world of museums by getting administrators to rethink their value proposition, WPI graduates are applying their problem-solving skills in creative and successful ways. It is this talent for problem solving that inherently positions our graduates for leadership.

Professional accomplishment is just one area where leadership manifests. Family, community involvement, civic engagement, the willingness to volunteer, to give back, to be a part of something larger than oneself is another form of leadership that is vital to a healthy society. Here, again, I am pleased to say that WPI alumni have distinguished themselves, and I encourage you to read the expanded Class Notes section in this issue, which shows many WPI graduates deeply involved in their communities. The WPI Alumni Association has recognized some of these hard working alumni who have volunteered their time, energy, and ideas on behalf of their alma mater, and you can read about their accomplishments beginning on page 52.

Measuring leadership may be difficult to do numerically, but it's not hard to identify when you see it in action. To that end, WPI has been fortunate to have a stalwart example of leadership for more than a century in the form of The Skull, whose 100th anniversary is captured in these pages. The society, which eschews publicity and recognition, often points to Mildred McClary Tymeson's history of WPI, *Two Towers*, as the impetus behind their collective work. In that book, Tymeson closes with the following line:

[WPI] stands there for more than any other reason because—
by some strange and wonderful supply—
there have always been enough people who cared.

Therein lies one sure measure of leadership—people who care. And that, I am proud to say, is also a prominent outcome from a WPI education.

Dennis Berkey

nerdy-interesting

▶METRICS

WPI Ranks Among Best In Many Ways

THREE RECENT RANKINGS will come as no surprise to WPI alumni. *The Huffington Post* ranked WPI among the 10 Nerdiest Colleges in the U.S., citing such "nerd-esque" traditions as the "trigonometry-laced" fight song. (You know the one: "E to the X... D-Y, D-X / Fight 'em, Fight 'em, WPI!"). The popularity of combat robotics also weighed heavily in the decision.

While "nerdiness" is trending up, the 2012 Fiske Guide to Colleges focused on WPI's other notable traits, placing the Institute on its list of 13 "Most Interesting Colleges." The 2012 Fiske Guide describes WPI as: "Small, innovative, and undergraduate-oriented, Worcester Polytechnic Institute is anything but a stodgy technical institute. The WPI Plan is hands-on and project-based and takes a humanistic view of engineering. Emphasizes teamwork instead of competition." Nothing nerdy about that.

Student assessment landed WPI on Unigo's list of "Best Colleges for 21 Century Einsteins," which noted, "WPI attracts some of the brightest young science and engineering students in the nation." Name recognition, student-teacher interaction, and the success of graduates were commended. "Students who graduate from WPI may have plenty of high-paying professional options awaiting them, but they have to survive the school's rigorous academics first," said one student review—which, President Dennis Berkey noted, "is a good reminder that the real rewards in life come from the work at hand."

▶ON CAMPUS

Wilbur Reactor Decommissioned

HAT DOES IT TAKE TO PUT A NUCLEAR REACTOR TO BED?

A significant milestone in the decommissioning of WPI's Leslie C. Wilbur Nuclear Reactor occurred in July, with the removal of 27 uranium fuel rods from the light water reactor pool. The multi-phase decommissioning process began in 2007, when the 10 kW reactor went off-line and WPI's license was amended to non-operating, possession-only status. The decontamination and dismantlement phases may take another year or two.

In 1959 when the reactor went live in the Washburn Shops, mechanical engineering professor Leslie Wilbur reassured anxious neighbors by comparing the reactor's energy output to a couple of light bulbs, or a toaster. "Its purpose," he said, "is to show students how chain reaction works and how to control it, not to capture or use its resulting heat." Wilbur personally kindled the reaction by dangling the plutonium and beryllium catalyst over the pool in a plastic baby bottle fastened to a string. (Sol's corner drugstore—owned by Solomon Hurowitz '22—was always a handy source of such sundries, according to the account in *Two Towers*.) Wilbur joked that it was only a matter of time before students would smuggle a goldfish into the pool.

The regulatory environment has changed greatly, says plant director Michael Curley, who serves as university compliance officer. The original uranium fuel rods were delivered by regular train freight, with no special handling. Fifty years later, the plutonium and beryllium source—which Curley calls the "Einstein Cocktail"—left WPI in an insulated cylindrical drum the size of an office desk, under the escort of six officials from the Department of Energy.

The partially spent uranium fuel will find new use in UMass Lowell's reactor. "WPI reactor never created, or stored, potentially dangerous spent fuel," says Curley. "Now, with the fuel gone, we can back off with some of the alarms." He notes that security and specialized insurance for the reactor imposed a drain on the university's resources. WPI's nuclear engineering program was discontinued in 2000, due to waning interest. "I have the greatest respect for the institutional history and memory that goes along with this facility," he says. "I keep going back to Dr. Wilbur's vision in bringing something extraordinarily new and exciting to the Institute. I feel a little sad to see it ending with a whimper, in such a long, drawn-out process."

But certainly that's better than ending with a bang.

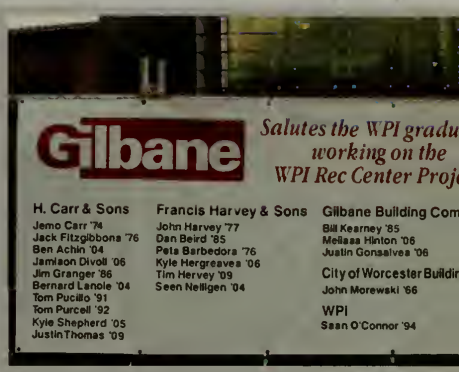
▶FROM HELMETS TO HARDHATS

Former student athletes take pride in rec center work

MORE THAN 20 FORMER STUDENT ATHLETES have exchanged football helmets (and other athletic gear) for hardhats as contractors on WPI's new Sports and Recreation Center.

Jamo Carr '74, president and CEO of Providence, R.I.-based H. Carr & Sons, is not only working on the center but is also its fundraising co-chair. "When I look back on the reasons I came to WPI—to get an engineering education and to play Division III football—it's gratifying to know that a new generation of engineers, especially women, have access to these facilities," says Carr. "It's more than just a playing field. It combines recreation and learning. It contributes to the health and well-being of the entire campus." Carr has a dozen WPI alumni working for him, including vice president Jack Fitzgibbons '75, a former football team captain and defensive end.

Former offensive lineman Dan Baird '85, now vice president of operations at Francis Harvey & Sons, has been involved in a dozen campus projects, including the original construction of Morgan Hall, the Bartlett Center, and East Hall. "I've always taken great pride in working on projects for WPI—especially this project. The new rec center will provide a wonderful opportunity for students to enjoy an athletic experience on par with the outstanding education that the Institute provides. This new facility will help WPI continue to attract outstanding scholar-athletes."



Back in 1911, WPI alumni also rallied to build a gymnasium for their alma mater. Which just goes to show—once an Engineer, always an engineer.

▶KUDOS

Innovator of the Year
Jim Baum captures WPI Innovator Award

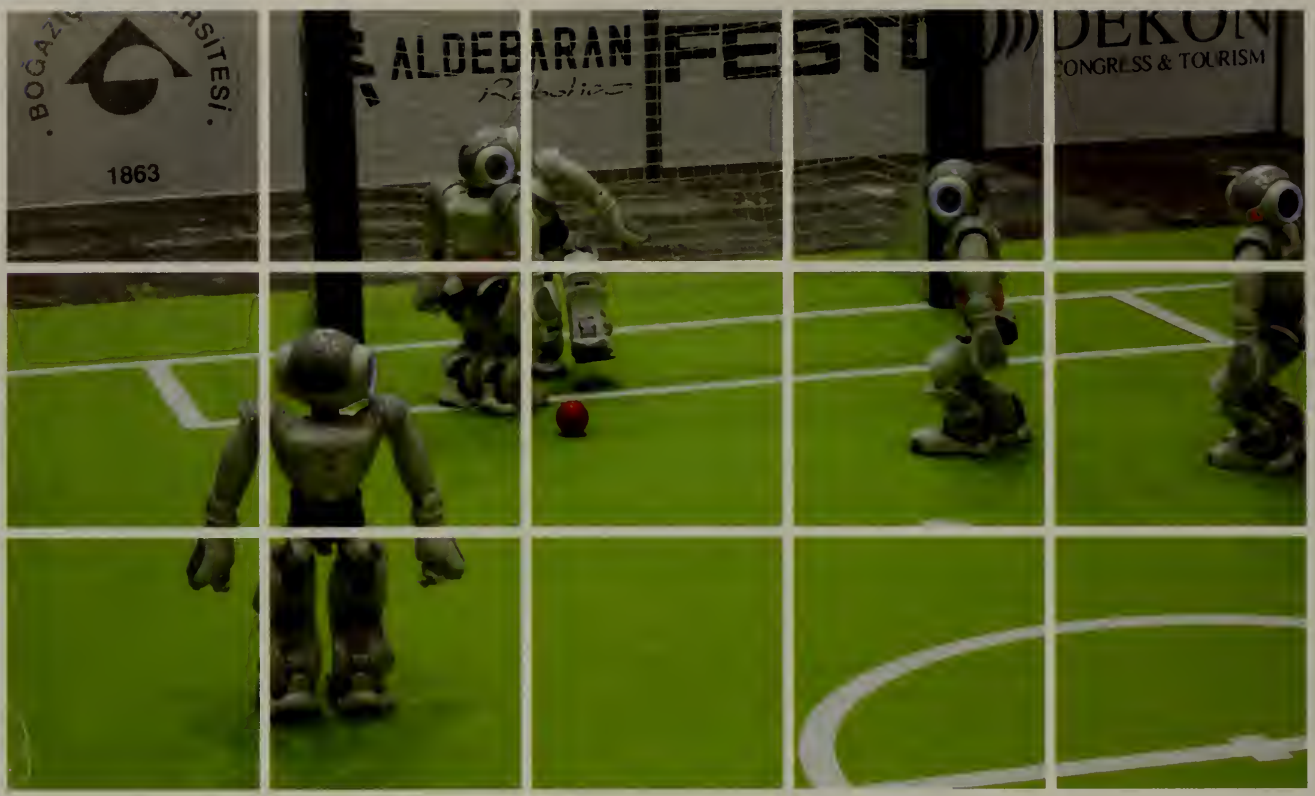
James Baum '86 received WPI's first-ever Innovator of the Year Award at a School of Business reception held Oct. 27, 2011, for alumni and friends. Baum, a serial entrepreneur, was executive vice president and general manager at Parametric Technology Corporation, where he helped generate more than $1 billion in revenue. As president and CEO of Endeca, he led the company to stellar growth, becoming the leading provider of e-commerce solutions to major online retailers. Now president and CEO of Netezza Corp., he is credited with 14 straight quarters of growth after Netezza went public in 2007, which led to an acquisition by IBM in 2010, a transaction dubbed "the most disruptive acquisition of 2010" by *InformationWeek*.

"As a role model, Jim Baum shows our students how to apply their knowledge and skills to real-world challenges that result in innovations that can make a positive difference in the world," says Mark P. Rice, dean of the WPI School of Business. "The Innovator of the Year Award is a powerful signal of WPI's commitment to developing—and recognizing—innovative and entrepreneurial leaders for a global technological world."

▶QUOTABLE

After spending some time in Las Vegas, I came to the conclusion that gambling appeals to people who are bad at math.

MARK KETCHUM '75
Chief Engineer of the Hoover Bypass Bridge



▶WORLD STAGE

GOOOAAAL!

WPI robotics team impresses at first international competition

IS A MIDDLE-OF-THE-PACK finish ever something to write home about? It is when you're on a world stage, it's your first time competing, and you're up against 27 other teams.

Technically, the WPI Warriors robotics team wasn't listed among the winners at the international RoboCup held this past July in Istanbul, Turkey, finishing somewhere between 9th and 16th. But just competing was a major victory, considering that WPI was one of only five U.S. universities to even qualify for the event.

RoboCup is an international competition designed to promote artificial intelligence and robotics through autonomous soccer-playing robots who compete in 20-minute matches.

"The key word is autonomous," says Sonia Chernova, assistant professor of computer science and robotics engineering at WPI and faculty advisor to the team. "These robots are not remote-controlled. They observe the world through two head-mounted cameras and use this information to communicate with each other and decide what action to take."

"These robots are not remote-controlled. They observe the world through two head-mounted cameras and use this information to communicate with each other and decide what action to take."

The competing teams are similar in their mix of graduate and undergraduate students, but can be very dissimilar in their levels of experience. That's why WPI's middle-of-the-pack finish was impressive, according to Chernova.

"WPI did very well, especially for a first-year team," she said. "We played six matches and made it into the top 16, passing 12 veteran teams. We were eliminated in the second round by a very experienced team." And while competition is the driving force, RoboCup also offers valuable learning opportunities, says Chernova. "RoboCup is unique in that many teams release their work as open source each year. This means there's a lot of technological progress each year as we discover solutions to old problems and tackle new ones."

Chernova first got involved with RoboCup as a student at Carnegie Mellon University. After joining the faculty at WPI, she established the Warriors robotics team so students could tackle challenging research problems in a fun way. Outside of RoboCup, her work focuses on the development of algorithms that enable robots to learn through social interaction with humans.

WPI Warrior team members include David Kent, Quinten Palmer, Runzi Gao, William Mulligan, Fredrik Clinckemaillie, Christopher Conley, Benjamin Leone, and Khan-Nhan Nguyen. The team has already started planning for next year's competition in Mexico City.

▶Q&A

See No Stereotypes

With camera in hand, Troy B. Thompson '95 takes aim at stereotypes and the inherent harm they create.

Troy Thompson's No Evil Project (NoEvilProject.com) is a community-building initiative designed to raise awareness around the harm that comes from stereotypes. Thompson's project features photographic triptychs of ordinary people posing as the three wise monkeys. Subjects are then asked to label their pictures with three words that others might use to stereotype them, followed by a brief description of a good deed they've done. The No Evil Project will have its first public exhibit at the Hanover Theatre for the Performing Arts in Worcester later this year. *Transformations* caught up with Thompson to ask about the impetus behind the project:

Did a specific event trigger your idea for the No Evil Project?

It's really a reaction to the hyperbole of the media and the belief that anyone with a different opinion from yours is evil. The project started when I was talking with a friend about the Democrats vs. Republicans and the growing anti-Muslim sentiment in our country. It really bothers me because I know Democrats, I know Republicans, and I know Muslims, and they're all good people. Yet, when they're talked about, especially online, it's always in a way that attempts to create conflict, and nothing gets solved. I wanted to find a way to have a productive conversation without all that anger. My goal is to get something very positive to go viral—other than like a kitten falling asleep. I thought that having people pose as the three monkeys would help break the ice.

This project is personal to me. I'm white, my wife is black, and we're raising our multiracial daughter, Naomi, who's now two years old. We're just getting a sense of what she's going to deal with growing up. I'm trying to make the world a little more understanding and informed.

Has the project changed opinions?

Having something visual and funny is a good way to get people to think about deeper topics. More often than not, people who participate in the project come back to me and say that just thinking about their own labels helped them to realize how people view them and how they themselves view others. It's really an emotional thing for them—to be able to take a step back and see what's going on and do some self-reflection. That makes it all worth it.

How did your time as a WPI student influence your approach?

WPI teaches you how to learn. We're taught that when you confront a problem, you need to brainstorm and come up with radically different ways to solve the problem. The exhibit started out as a website with photographs. Now I'm into fundraising, marketing, and setting up physical exhibits and events. Fundraising is a key priority, as the goal is to spread awareness. Anyone in the world can take part in this project. The more people involved, the more awareness we raise. Now I need a funding partner who shares that vision. My simple project has gotten me into all sorts of new things. But then, learning how to learn comes back. I do my research and learn—and then it gets done.

Troy B. Thompson '95 is owner of Daedal Creations Web Design in Worcester.

▶LOST AND FOUND

Poetic Discovery

WPI's James Dempsey uncovers lost Cummings poem.

FINDING A LOST LITERARY TREASURE is always noteworthy in academic circles, but when the find happens at a science/technology school and not the Ivy League, well, the literary world takes notice. Such was the case when WPI English instructor James Dempsey discovered an unpublished E. E. Cummings poem during his latest research project.

Dempsey, who teaches writing and literature, was researching his biography of early 20th century publisher Scofield Thayer when he opened a folder among Thayer's papers and found several typewritten poems by Cummings. Thayer was a close friend of Cummings and published the poet's work in his famed literary magazine, *The Dial*.

Dempsey recognized a few of the pieces as earlier versions of Cummings' poems he'd seen in print, but one stood out as unfamiliar. He put it aside and went back to his research. Later he contacted the E. E. Cummings Society, which confirmed that the 1916 poem, titled "(tonite," had indeed never been published and Dempsey may have been the first person to set eyes on it since Thayer had tucked it away decades earlier.

Dempsey presented his find to the E. E. Cummings Society last spring and wrote about it for the website, The Awl. Cummings was just 22 when he wrote "(tonite" during what Cummings Society coordinator Michael Webster says was a period of great poetic experimentation for the young artist.

The poem has sparked some debate because of its persistent use of a racial slur. Webster noted that the find offers a new opportunity to show students how the public's reaction to a charged word changes according to standards of the time and the way in which artists push at those standards. Dempsey says he looks forward to bringing the discussion into the classroom.

"It raises important issues of how we should react to art of this kind," he said

▶VISITORS

Gompei's Family Tree

Descendant of Gompei Kuwada visits WPI to learn more about his famous great uncle.

THE GREAT-GRANDNEPHEW OF GOMPEI KUWADA 1893, Professor Arata Ichikawa, visited the WPI campus on Sept. 16, 2011 to get a firsthand look at the school that has held such a prominent place in his family's history.

"It's quite special to visit WPI and learn more about my uncle and the wonderful education he received here," says the 74-year-old Ichikawa, who arrived at WPI knowing that his uncle had a prominent role in WPI lore, but not the specifics of the Gompei legend. "It was fun to learn about Gompei the mascot, its coveted place among the students, and my uncle's involvement," he says. "It is a wonderful tradition."

Ichikawa's interest in his great-granduncle was spurred by his own involvement with American football while a student at the University of Tokyo, where he also taught for 30 years. "I introduced American football to the University of Toyko, and that team still plays today," Ichikawa says with pride.

When he first encountered American football, Ichikawa had no knowledge that his great-granduncle was involved with WPI's program. But years later, when he did come across the legend of Gompei, he knew he had to visit the WPI campus someday. "I am very happy to see where our family ancestor first learned about the sport of football and started this wonderful WPI tradition of Gompei."

Ichikawa enjoyed a special dinner with student leaders on Friday evening, where he also delivered a presentation on urban engineering. The following day, he attended the WPI football game, a 31-3 romp over Becker College, where he was impressed by the Engineers' strong running game and stout defense.

"It was wonderful to see Professor Ichikawa interact with the students, who truly embraced him," says Peter Thomas, executive director of Alumni Relations who hosted Ichikawa's visit. "And the professor knows his football. He was predicting plays before they happened throughout the game."

▶ALL-AMERICAN

Academic All-Americans

Adebayo is sixth WPI student to earn honors this year.

FUNMI ADEBAYO '11 was named an Academic All-American for Women's Track and Field by the College Sports Information Directors of America, helping set a new record for WPI as Funmi is the sixth Academic All-American selection this season. A two-time All-District first-team honoree, Adebayo also earned Academic All-NEWMAC status three times, in addition to claiming the Two Towers Award, the Women Achievement Award, and induction into Tau Beta Pi. As if that wasn't enough, Adebayo's IQP created a new student health advisory council here on campus.

WPI's 2010-11 Academic All-American recordsetting lineup also included Jeff Baker '11 (track and field), Celena Dopart '12 (field hockey), Paul Moan '11 (soccer), Aaron Champagne '11 (football), and Matt Carr '12 (basketball).

▶FAREWELL

Ben2K Goes Okay

After 42 years, stalwart IT leader Ben Thompson '73 retires.

At the close of Fiscal Year 2011, WPI experienced a transition as epic—and as uneventful—as Y2K: the retirement of Ben Thompson '73 from the WPI IT department. Thompson's retirement brought no system crashes or queues of unfed students stymied by malfunctioning ID cards. Instead, Thompson, who thinks of WPI as family, took great care to ensure a smooth transition for the thousands of WPI students and employees who use the systems he has designed and maintained for 42 years.

Thompson started working in WPI's nascent computer center as a freshman, running data processing jobs on punch cards. He retired as associate chief information officer. CIO Deborah Corwin Scott called Thompson "the organizational memory that knows why all the decisions were made in the past that make up the present and inform the future." The sheer volume of "tribal knowledge" he passed on called for a "Vulcan mind meld," she said.

"He was a great face for IT," says operations manager Heidi Startz. "Technology can seem large and scary for some people. But Ben could talk to everybody, and was always willing to help. If you were going in the wrong direction, he would steer you right, and you would never even know it happened."

"He touched a lot of lives," says Academic Technology Center Director Mary Beth Harrity. "Ben was always a geek. He was first in his high school to own a VCR. He had his best ideas at three in the morning. And he was a great boss—always fair and very creative."

Scott announced that in honor of Ben's retirement, the "CCC" moniker for WPI's Computing & Communications Center would also be retired. On July 1, 2011, the department went forward under the simple banner "Information Technology."

▶IN MEMORIAM

WPI Mourns "Ma" Fell

Legendary Homecoming Queen passes away at 93.

Marie Fell passed away July 2, 2011, at age 93, following an illness. Marie, or "Ma" as she was known around campus, was a cook for the WPI chapter of Alpha Tau Omega (ATO) fraternity for 30 years, starting in 1969.

"Ma quickly became the 'Sweetheart of ATO.' To this day and forever after, she will always be considered the house mother of the Gamma Sigma chapter," said Sergio Cherenzia '04 and Kyle Powers '12 in an e-mail to the WPI community. She is credited with keeping the brothers in line and contributing to the success and popularity of the fraternity. She also played the role of "resident psychiatrist," lending an ear to students who needed to discuss problems.

In 1981 Fell was tapped by the Skull. ATO nominated her for homecoming queen in 1983, and she took the crown, becoming the "most senior" homecoming queen in the university's history, at age 66. For this achievement, she was mentioned in newspapers across the country.

▶MAKING A DIFFERENCE

Lessons from 9/11

Sixth annual workshop garners national attention.

AS ANY PUBLIC SAFETY CHIEF WILL TELL YOU, the hardest part of their job is watching their men and women vanish into a building to save lives, not knowing when – or if – they'll emerge safely. On Sept. 11, 2001, the entire country watched this scene unfold on an unimaginable scale as hundreds of emergency workers rushed into the World Trade Center just before the towers collapsed. Ten years later, rescuers in full gear crawled through the stairwells and corridors of Atwater Kent in simulated search-and-rescue missions at WPI's sixth annual Precision Indoor Personnel Location and Tracking Workshop, sponsored by the Department of Homeland Security.

The annual workshop, held in August, brought together experts from industry, academia, government, and public safety to focus on the latest technologies that provide critical information about the whereabouts and physical condition of rescue workers, as well as the environmental conditions in which they're working.

A 1999 fire tragedy in Worcester, resulting in the loss of six Worcester firefighters, launched Associate Professor Jim Duckworth and Professors David Cyganski and John Orr on a quest to develop better indoor tracking systems. The 9/11 terrorist attacks brought even greater urgency to the task, prompting WPI to host the annual workshop.

One indicator of the importance of this research is the amount of press coverage the workshop generated, with 347 separate media outlets mentioning the event.

WPI is also leading a new national study to investigate the risks of rescues and fighting fires in high-rise buildings. In the 9/11 attacks, emergency workers carrying heavy gear had to climb tens of stories to reach victims, fighting against a tide of people rushing to escape. The high-rise study will examine new approaches to firefighting.

▶ADDITIONS

Mastering the Game

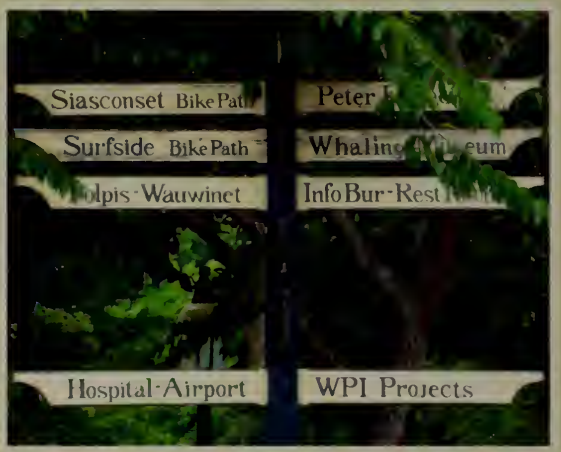
WPI adds master's degree to nationally ranked program.

WPI'S INTERACTIVE MEDIA AND GAME DEVELOPMENT PROGRAM (IMGD) has added a master's degree with three distinct focus areas: technical (for students with a software development background); serious games (for students who want to apply IMGD to areas such as education, simulation, social sciences, or interactive art); and management (for those headed toward the business side of game development). With only a handful of schools in the country offering an MS, WPI continues to build off the groundbreaking success of its undergraduate IMGD program launched in 2004, which now ranks among the university's top 10 majors. This spring the Princeton Review ranked WPI's IMGD program sixth in the nation and first in the East.

▶NEW VENTURES

New Project Center

Nantucket home to latest WPI Project Center.



S THE LAST SUMMER CROWDS pulled up their beach umbrellas and left Nantucket to its year-round residents, a group of WPI juniors was laboring away in Worcester, preparing to leave a more enduring mark on the island.

The university's Nantucket Project Center is the latest of its 27 project centers on five continents. The island is an ideal place for a project center, according to Dominic Golding, adjunct associate professor in the IGSD. It faces many of the same issues as elsewhere, but on a smaller scale, which makes research more manageable for the students.

"The island is very much a bounded community," Golding says, "but it also reflects the larger society."

The center was built on the success of nine pilot projects in 2008 and 2010, which addressed issues as diverse as alternative energy, public awareness of Lyme disease, and the use of cell-phone technology for self-guided tours of historic properties.

In B-Term, six IQP teams embarked on in-depth investigations in museum studies, energy use and conservation, sustainable agriculture, and beach restoration. Nantucket's 10,000 year-round residents were particularly welcoming, connecting the students with the people and resources to help with their research.

"The great thing about being on the island is that everyone knows everybody," says Golding. "It gives the students tremendous access, and they get a very special reception and treatment while they're here." The pilot project teams were featured on local television, and invited by the Nantucket Board of Selectmen to present their findings at a meeting. A large showing of community members turned out to hear the teams' final presentations.

"It's a small place," he says, "but it gives the students a very high profile."

▶RECOGNITION

"Father Pete" Receives Goat's Head Award

WPI chaplain recognized for lifetime commitment.

REV. PETER SCANLON was presented with the Goat's Head Award for Lifetime Commitment to WPI by the Alumni Association at a special ceremony during Homecoming Weekend. The Goat's Head Award recognizes individuals for their lifetime contributions to WPI.

"Father Pete," as he was affectionately known to all, was responsible for establishing a Catholic campus ministry for the Worcester area colleges in the early 1960s. He became WPI's first full-time chaplain in 1969, lending a guiding hand and compassionate ear to thousands of students. "He was a friend, mentor, and counselor to all students—not just the Catholic ones," recalled one alumnus at Scanlon's retirement. He married many alumni couples, he baptized their babies, and when their children reached college age, he watched over them, too.

"You have dedicated your life's work to helping others," read the citation in his honor. "During your time at WPI, you oversaw your flock—which included members of all faiths—in good times and bad." As Catholic chaplain to the Worcester Fire Department, Scanlon "prayed and cried" with those affected by the Worcester Cold Storage warehouse fire in 1999 and the tragedies of September 11, 2001.

Although he officially retired from active ministry in 2006, Scanlon continues to maintain close ties with the WPI community. He also holds a part-time position as diocesan vicar for colleges and universities.

▶COLLABORATION

Music Brings People Together

WPI professor finds a common language in Palestine.

OUGLAS WEEKS, WPI professor and administrator of applied music, found harmony in Palestine during a recent trip there for the Music Days festival.

"We got people working together through music," says Weeks about the two-week summer festival, which saw 80 young Palestinian musicians from West Bank refugee camps work with about 20 instructors from around the globe. Their end product was Western-style instrumental music like jazz and classical, as well as traditional Arabic drumming.

Music Days' theme was "Visit Palestine" and the program was sponsored by the American consulate and the nonprofit Al-Kamandjati Association. Its goal: celebrate music across cultures. "There was a lot of enthusiasm, and the people were very warm," Weeks says. "They often invited me back to their homes for a meal. They were very hospitable."

Weeks, whose specialty is brass instruments, acted as a mentor, teacher, and performer for the second year in a row. "It was the perfect fit of performance and music education," he says. "There was a noticeable improvement in the quality of music making from last year. You form a close connection with the students."

Despite the volatility in that part of the world, Weeks found it a pleasant experience. "It was an opportunity to go into a troubled area and do something for kids, to help them improve their music skills and therefore their life," he says. "I have a better understanding of the conflict, too, but our visit wasn't about the politics. It was about collaboration."

▶DOMINATION

Fire Protection Burns Bright

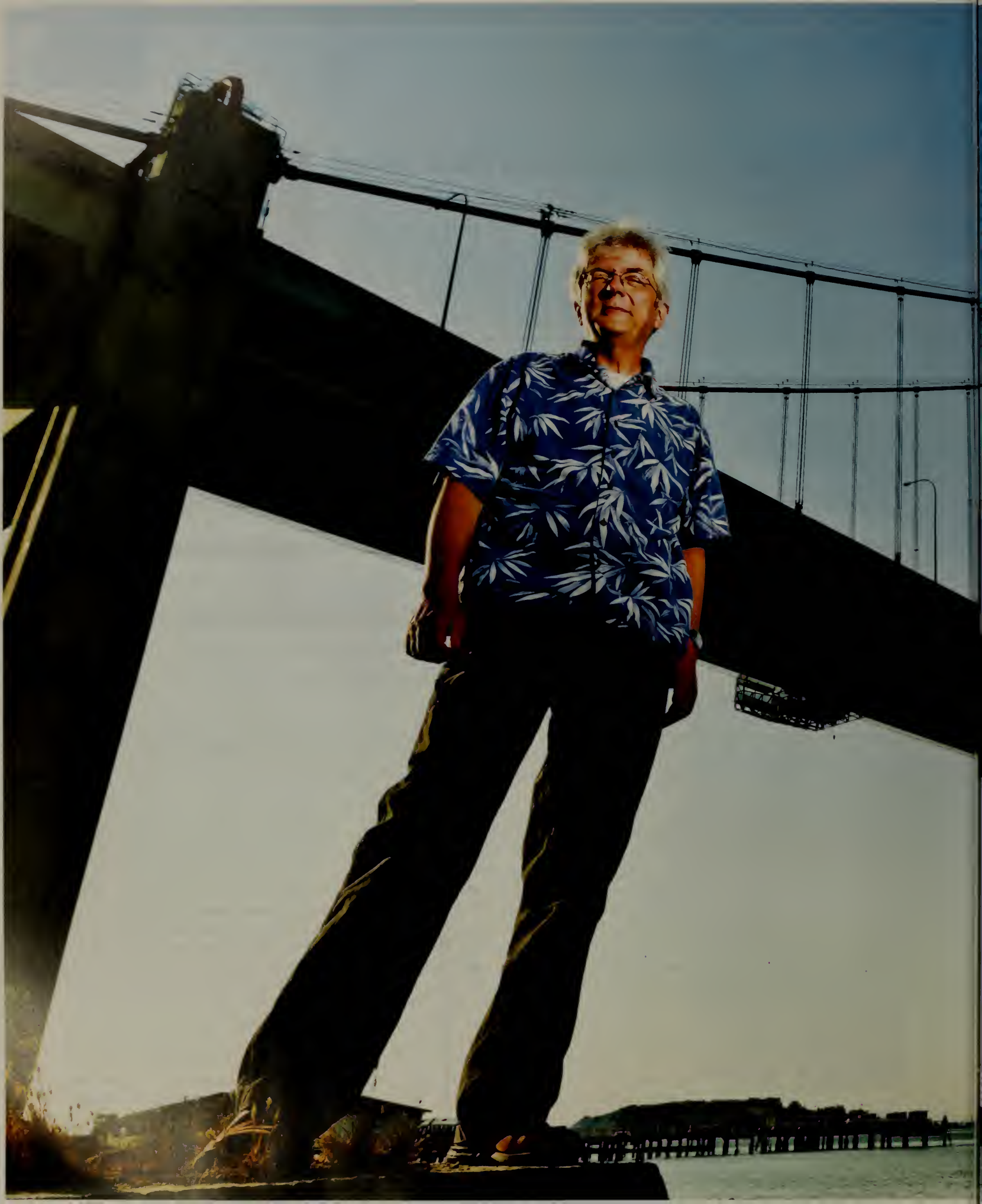
WPI Students Dominate National Conference.

THE COLOR CRIMSON dominated at the student poster session of the National Fire Protection Association's annual World Safety Conference last June. Of 16 projects selected by judges from submissions from around the world, 10 were from WPI students. Proudly clad in FPE shirts, they displayed research findings ranging from the effects of cultural bias in building evacuations to the dynamics of forest fires and dust explosions. This is the first time student projects were solicited for the conference.

"The depth and variety of student research presented at this important conference reflects the major areas of technical expertise and leadership of WPI's world-renowned faculty," says WPI's head of Fire Protection Engineering Kathy Notarianni.

Under Notarianni's leadership, the department has attracted millions in research dollars, including the latest grant—a $1 million award from the U.S. Department of Homeland Security and the Federal Emergency Management Agency to study the risks of fighting high-rise fires.

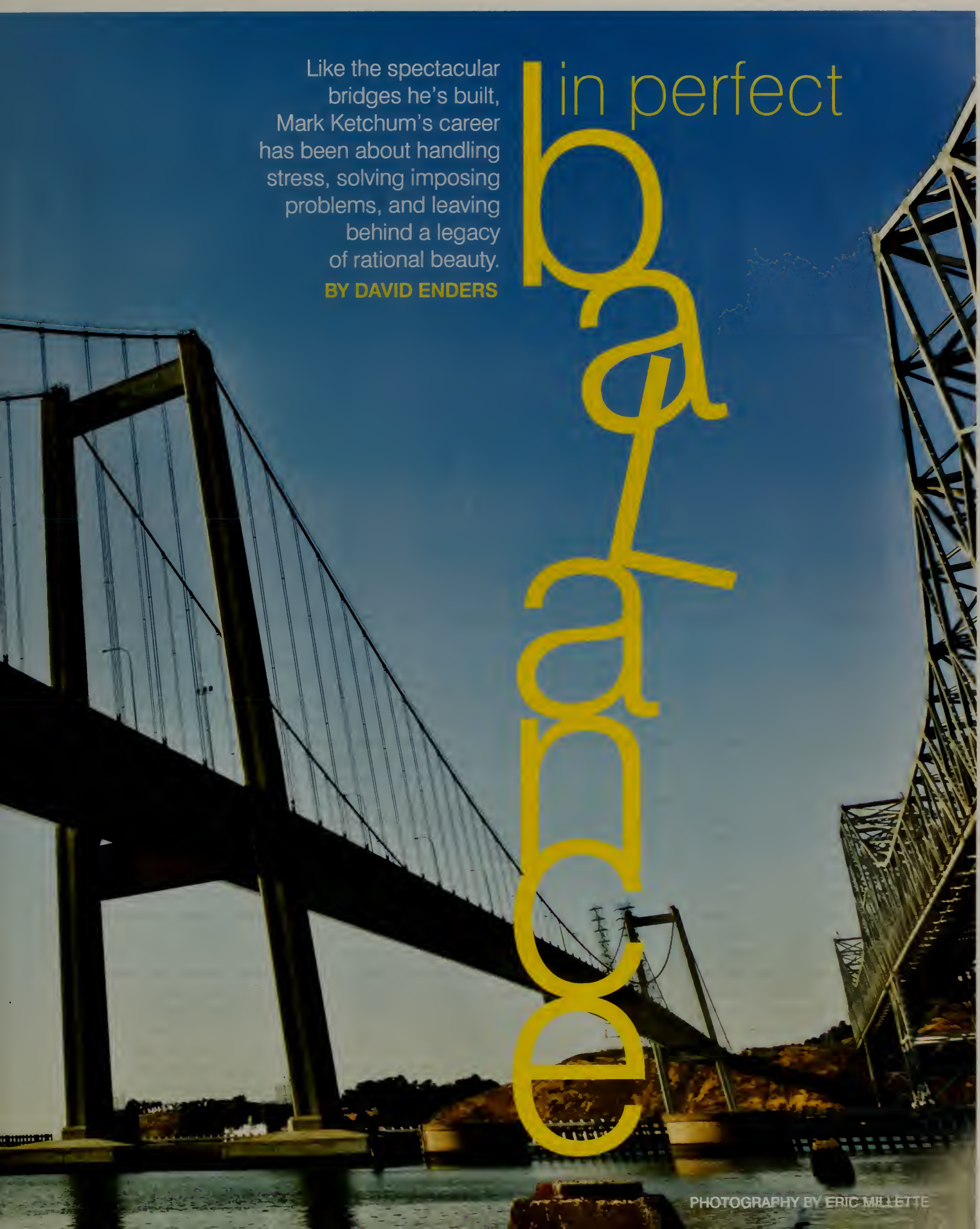
With students and faculty working from a variety of disciplines, including chemical, civil, and mechanical engineering, architecture, robotics, and physics, WPI's FPE program continually pushes the boundaries of knowledge in fire protection. "People ask me 'How is it that WPI is taking over?'" Notarianni says. "WPI is a very dynamic, problem-solving place, and that's why it's so successful."



in perfect balance

Like the spectacular bridges he's built, Mark Ketchum's career has been about handling stress, solving imposing problems, and leaving behind a legacy of rational beauty.

BY DAVID ENDERS



PHOTOGRAPHY BY ERIC MILLETTE

The arch is a classic among structural forms. "Like human society," posted the Roman stoic philosopher Seneca, "the arch is kept from falling by the mutual pressure of its parts." Having recently engineered the construction of the Hoover Dam Bypass bridge, the longest span concrete arch in the western hemisphere, Mark Ketchum '75 knows something of the mutual pressures that make up the balancing act of our nation's infrastructure

Ketchum has 32 years of experience in bridge design and construction support—and not the everyday pre-cast, concrete on-ramp type that routinely gets made. He designs big, iconic, awe-inspiring, way-of-life-changing bridges. They may be concrete arch-supported, suspended, cable-stayed, or cantilevered, but each are unique and custom-designed to fill a societal need, to bridge an identified gap in the infrastructure. His international bridge engineering firm is based, appropriately enough, in San Francisco.

Bridges are under enormous stress from wind, water, and earthquakes, and those are just the natural stressors. Add to that the societal stress of ever-increasing ship- and road traffic, budget shortfalls for maintenance and repair, the quickly shifting political climate—and you wonder how our nation's bridges, approaching an average age of 50, have stood for so long. "Earthquakes, windstorms, and ship collisions weren't really well considered 75 years ago," Ketchum says, "and now we know a lot more about how much energy these structures need to soak up to survive."

Civil engineers like Ketchum, who pioneered new seismic technologies 20 years ago in the precedent-setting Golden Gate Seismic Retrofit project, are a big reason many of the older bridges are still around. The 57-year-old vice president of OPAC Consulting Engineering, a company he co-founded 20 years ago, calls the Golden Gate one of his "breakthrough projects."

His foundation in engineering goes back to WPI—and maybe a little genetics. Originally from Denver, Ketchum's father, Milo Ketchum Jr., was a pioneer in pre-stressed concrete, space frames, and dome structures. His grandfather, Milo Ketchum Sr., was the dean of the College of Engineering at the University of Colorado from 1906 to 1917 and literally wrote the book on structural engineering: the 900-page *Structural Engineers Handbook*. His father moved the family to Old Saybrook, Conn., when Ketchum was eight years old. "I had an interest in building things and in mathematics as long as I can remember," he says. And when it came time to choose a college, he knew he "didn't want to be in the middle of a giant college in a giant city." WPI was a good fit, and he especially liked the innovative and hands-on approach to engineering exemplified by the WPI Plan. "The project format of the school really gave me an achievement framework on which to build. It taught me to not be scared of going after bigger and better things."

GO WEST, YOUNG MAN

Ketchum pursued his master's, and later a doctorate, from the University of California at Berkeley where he met his lifelong mentor, Tung-Yen Lin, widely considered a pioneer in pre-stressed concrete design and construction. "I was T. Y. Lin's teaching assistant at Berkeley, and when I finished his class with flying colors, he offered me a job."

Ketchum's WPI project experience, his early research work with Lin, and his analysis work at Berkeley made him an ideal candidate to be project engineer on the Golden Gate project. Originally, the project's scope was to research the feasibility of adding commuter rail just below the highway deck, but then came the 1989 Loma Prieta earthquake. That quake, a 7.1 on the Richter scale, knocked down a span of the Bay Bridge, took 68 lives, and caused $7 billion in damages. It also forced government officials to acknowledge the 1,000-lb. gorilla in the room. The epicenter of the Loma Prieta quake was some 60 miles to the south. The U.S. Geological Survey subsequently concluded that there was a 62 percent probability of at least one magnitude 6.7 quake or greater impacting the San Francisco Bay region by 2031.

A comprehensive, state-of-the-art, seismic study was added to Ketchum's work on the Golden Gate. "We had to consider that although it was a state-of-the-art bridge in the 1930s, it was built with rivets and what is now considered low-strength steel, both of which are now obsolete."

The study concluded that the Golden Gate was indeed vulnerable to a seismic event of greater magnitude or closer proximity than the Loma Prieta quake. "We came up with ways to improve its seismic performance without significant change to its appearance. We called it our 'retrofit strategy.'" Twenty years later, the bridge is now in the third and final phase of the retrofit and virtually all of Ketchum's recommendations, in one iteration or another are

KETCHUM SERVED AS CHIEF ENGINEER ON THE HOOVER DAM BYPASS BRIDGE, COMPLETED IN 2009.

being implemented. "One of the biggest issues was taking 20 years to get the funding. Building new projects is sexy, but fixing the old stuff? Not so much." The retrofit project has been awarded the Outstanding Civil Engineering Achievement Award by the ASCE.

After T. Y. Lin International was sold in 1992, Ketchum decided rather than continuing with the new larger company, he would start one of his own. "I took a giant leap of faith in quitting a well-paying job and starting a new company with absolutely no upcoming projects," he laughs. He and business partner, Kwong Cheng, a long-time associate and colleague at T. Y. Lin International, keep each other in balance. Both are accomplished engineers; Cheng serves as president of OPAC Consulting Engineers and handles the business and production end of the company while Ketchum typically wrangles with the technical side. "We have a very strong crossover in skills and abilities where the whole is truly greater than the sum of its parts," says Ketchum.

> The most admired big bridges in the world are typically ones that were designed to be structurally rational and constructible.

OPAC has not been shy about taking on bigger firms, especially on large-scale, pushing-the-envelope-type projects. They have engineered the first new suspension bridge built in the U.S. in more than 30 years (the Carquinez Strait Bridge in northern California) and completed multiple standout projects in South America, Micronesia, and Asia, sometimes competing with firms "whose marketing departments are bigger than our whole company," he says.

You win some and you lose some, he says of the pressure of competition, taking it all in stride and balancing career and family life. Ketchum met his wife, Valerie Knepper, in graduate school at Berkeley, where he earned his PhD in civil engineering and she her master's in public policy. Together, they live peacefully in what he calls "my two careers, two kids, too tired lifestyle."

His work has taken him around the world and has included engineering a one-of-a-kind bridge in Nanning in South China. "The client wanted something that

Early Warning Signs

STRENGTH, REDUNDANCY, DUCTILITY:

THESE ARE ABSOLUTE MUSTS IF A BRIDGE STRUCTURE IS TO REMAIN STANDING, says bridge engineer Mark Ketchum. These same qualities, it could be argued, make for a healthy national infrastructure. Our transportation system was built strong and has grown in network (if not structural) redundancy, but just how thin can it be stretched before breaking?

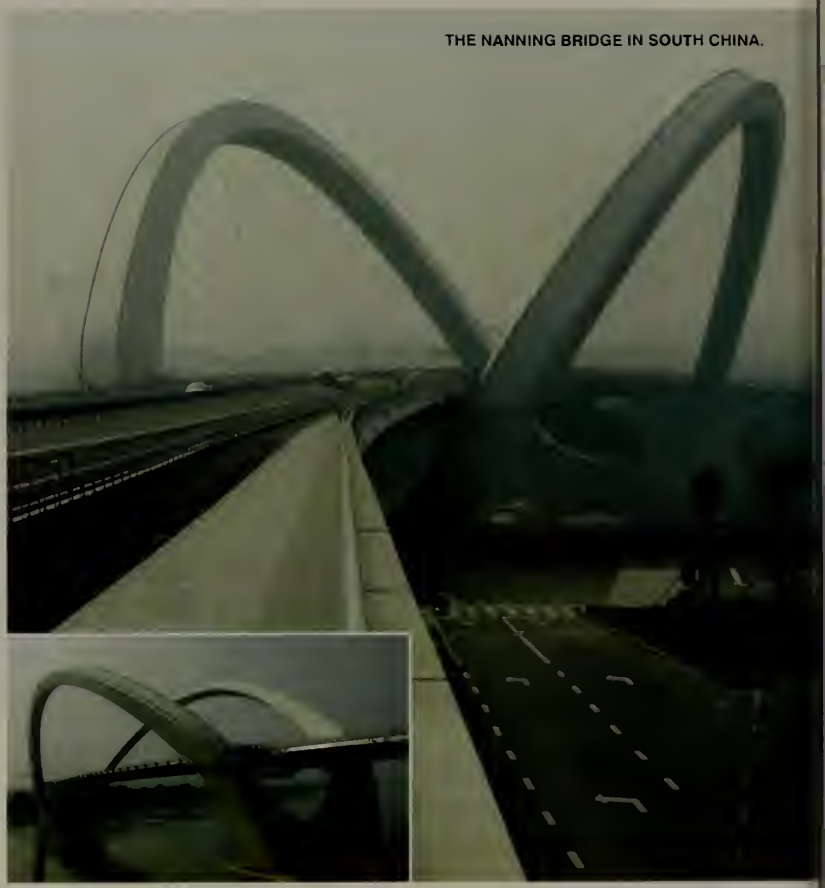
Transportation for America (a coalition for transportation reform) published The Fix We're In For: the State of the Nation's Bridges, a national study that says one in nine bridges is "structurally deficient." That's about 70,000 bridges in need of replacement or substantial repair. The American Society of Civil Engineers puts the figure even higher. The backlog of fixes could cost as much as $70.9 billion, the Federal Highway Administration estimates, while the federal budget outlay remains slightly more than $5 billion per year. Adding insult to injury, when the World Economic Forum releases its rankings of national infrastructure systems in September, the United States, currently ranked 6th, is expected to drop to 16th.

Reversing this trend is not likely to be easy given the political and economic climate, but there's no time like the present to ramp up the repairing or replacing of bridges, according to Ketchum. "A down market is the best time to invest in our civil infrastructure because costs are also down. If you wait until the market is up, it's more expensive to build anything and it's harder to find the labor." One only has to look at the massive amount of our nation's infrastructure completed during the Great Depression.

That golden era in infrastructure put people to work and was considered a sound investment in our economic future. "Look at the payback we've had on those investments from the '30s," Ketchum points out. "Hoover Dam, the big bridges in New York—these structures are still being used for our benefit."

"Compared to the rest of the world, the amount of money the U.S. spends on civil infrastructure in proportion to gross domestic product is small," he says. [The country spends about 2 percent of GDP on infrastructure, according to Reuters—about half what it did 50 years ago.] "I'm not sure how long we can maintain economic or military supremacy at that level." By comparison, Europe spends about 5 percent and China about 9 percent of GDP on infrastructure.

Having engineered the Nanning Bridge in South China, Ketchum was impressed with the Chinese commitment to building infrastructure. "They are in a build mode. They're building the biggest of just about everything in the world: dams, bridges, transportation systems, water, power. They're investing heavily in all these things." Politics and business practices vary greatly from country to country, he says, which can affect the speed at which infrastructure work gets done, but "engineers are engineers everywhere" and big problems get solved in creative ways if there is a commitment to do so.



THE NANNING BRIDGE IN SOUTH CHINA.

The Interstate 35 bridge collapse in Minneapolis in 2007 drew the country's attention to our crumbling infrastructure—at least for the short term—and Ketchum was called upon by National Public Radio and Fox News to comment on the collapse. The ensuing investigation revealed a complex mix of elements that contributed to the disaster. The original gusset plate design was no longer sound. Some early warning signs of wear were not dealt with in a timely fashion. There were long-term maintenance issues. Opposing pressures, structural and societal, all came into play. Ketchum and the ASCE advocate a strong and redundant peer review process to crosscheck engineering work because, he notes, "to err is human."

"It's never just one thing," says Ketchum. Design and maintenance go hand in hand. "These structures have built-in redundancy and it always takes more than one thing to knock one down. The true sign of an advanced civilization is not just what is built, but how it is maintained."

nobody's ever seen before," Ketchum says, noting the bridge has a 330-meter span—a "non-trivial structure."

The result is stunning: a fundamentally sound structure that looks like a work of art. "I have this theory about bridge design," says Ketchum. "The most admired big bridges in the world are typically ones that were designed to be structurally rational and constructible. They're designed for good performance, they're economical, and can be maintained, with designs conceived and executed by engineers who have a good sense of aesthetics." These classic bridges may be touched up by architects, he says, but most of the architecture is in the hands of the engineers. "This was true of the Golden Gate Bridge, the Brooklyn Bridge, and some of the old masterpieces like the Eads Bridge in St. Louis and the Firth of Forth Bridge in Scotland."

If you make the appearance of a bridge the top priority, and then challenge engineers to make it work, Ketchum maintains you get structures "that don't seem to endure the test of time" and cost much more to build. "My mentors always taught me that the difference between something ordinary and something stunning was about 5 to 10 percent of cost."

The Nanning Bridge "butterfly arch" illustrates the point. Returning to "first principles in structural shape finding," Ketchum returned to the classic arch. "The bridge actually has three arches. Two of them are obvious and the deck is the third arch and they are pulling against each other in perfect static balance, acting the way arches are supposed to act—that is, pure compression without bending."

Like early Roman engineers who would stand under their arch structures as the capstone was lowered in place, the ultimate in professional accountability was assumed.

DECOMPRESSING PRESSURE

Each project has its own challenges, Ketchum says, and it is this breadth of an engineering career that he finds most rewarding. "When I was a student at WPI, I enjoyed balancing tech classes with humanities classes. I loved philosophy and writing classes. It's the same with my career, it's the breadth aspect I enjoy, not focusing on one particular thing."

Ketchum likes to balance the technical R&D side of engineering with the creative side of design. He likes to balance office work with hands-on field work. "I spend a lot of time in the office, but I've also hiked the cables on top of the Golden Gate Bridge, 750 feet up. I've spent some time on a construction platform 900 feet up on the Hoover Dam Bypass. It seems like a lot of my field work begins with a white-knuckle experience."

The Hoover Dam Bypass Project (officially named the Mike O'Callaghan–Pat Tillman Memorial Bridge), completed in 2009 was another one-of-a-kind achievement. OPAC worked directly with the construction contractor to engineer and build the bridge needed to ease traffic congestion and deterioration of the nearby Hoover Dam. The huge arch of the bypass bridge stands on the tallest precast concrete columns in the world. It is more than 1,000 feet long and, as Ketchum likes to point out, "it's all within 3/8 of an inch of where it is supposed to be." Because OPAC was working directly for the contractor, Ketchum says he had the rare opportunity for instant feedback on whether OPAC-engineered structures were working. Like early Roman engineers who would stand under their arch structures as the capstone was lowered in place, the ultimate in professional accountability was assumed.

Large-scale civil engineering may not be for the faint of heart. A reportedly stressed-out Clifford Holland, who engineered New York's Holland Tunnel in the '20s, collapsed and died the day before the project's completion. Joseph Strauss, the lead engineer of the Golden Gate Bridge, died within a year of its completion—and just after writing his most famous autobiographical poem "The Mighty Task is Done."

To decompress, Ketchum estimates he has ridden his motorcycle some third of a million miles in 11 countries around the world. He enjoys sailing on the bay, bicycling, and making a "walkable community" a priority in his life. He walks about 20 miles a week in his commute to work. And he still keeps in touch and visits with WPI friends.

Mutual pressures? To be sure, but Ketchum's out-on-the-edge, risk-taking engineering career proves it's really all about balance. "Any difficult project can take a lot out of you, but there's no need to get obsessive-compulsive about it. I have limits for myself. I don't push myself into hellishly long workweeks."

The arch is a classic because it just plain works. It can eliminate tensile stresses pulling a structure apart by resolving those stresses into more manageable compressive stresses, redirecting forces, and holding it all together in a gently curved state of equilibrium—which is a good way to describe Mark Ketchum's career.

the mayor of cool

Illustrations by Alex Williamson

By Michael Blanding

With the launch of foursquare, Naveen Selvadurai may have discovered the Internet's next big thing. Now he's got to figure out a way to keep his social networking company on top.

From the moment Naveen Selvadurai '02, '04 (MS CS) got to WPI, his main thought was "how quickly can I graduate?" Not because he wasn't learning crucial information and skills in computer engineering. He was. But because he was eager to put those skills to practical use.

"I wanted to build things," he says. "I was itching to get out and do something cool." He overloaded on classes, studying straight through summers in order to finish his bachelor's in three years and his master's in another year and a half. The rest of his time was spent working computing jobs at Lucent Technologies and Sun Microsystems. "I didn't have much of a social life at WPI," he admits. "There were days when I didn't talk to anyone. I would be in a WPI lab all day, and working in a Lucent lab at night."

It's the ultimate irony, then, that when he finally did create something "cool," it would be a tool dedicated to pure socializing.

Social media sites — FACEBOOK, TWITTER, LINKEDIN — have allowed us to share unprecedented personal details with our friends and neighbors, at the same time they have, ironically, made us less social by allowing us to update a 'status' instead of a friend.

By contrast, Selvadurai and co-founder Dennis Crowley have flipped that on its head with their social media app foursquare (one word, lowercase f), which actually encourages people to go out and explore their cities and meet up with friends. In person!

Since the tech bubble burst back in 2001, the Internet has lost some of its get-rich-quick luster. Venture capital, particularly for start-ups, has dwindled significantly during the past decade, though a noticeable uptick began in late 2010, according to National Venture Capital Association. Internet pundits have been clamoring about the "next big thing" for several years now, and mobile social networking could be just that.

Here's how foursquare works: users download the application onto their smart phones, and then every time they visit new places — a café, bookstore, museum, or even a friend's apartment — they "check-in" to let their friends know where they are. Each time they do, they rack up points in a friendly competition to see who can visit more places — if they check into a specific place enough, they can even become the "mayor" of that place, possibly getting special discounts from the owner as a reward for their loyalty. Since foursquare launched in March 2009, it has proved wildly popular among a particular subculture of young, urban trendsetters, doubling its users to 10 million last year alone, resulting in nearly a billion check-ins worldwide.

Being a mobile app makes all the difference, as mobile networking has the potential to be a game-changer in social networking. Advertisers are slavering over the idea of targeting customers by their movement and destinations, and investors have signaled their interest by pumping money into the service, including a $50 million venture capital infusion this past spring that brought foursquare's market valuation up to $600 million. So far, however, the company has yet to show a profit. If foursquare is going to prosper in the space it created, Selvadurai and Crowley are going to have to transform it from a fun game for urban hipsters into a tool that the average consumer finds indispensable. For Selvadurai that's the whole point — ever since he was young, he's been looking for ways to use computers to enhance our lives in the real world, not just behind the screen.

From Theory to Practice

Selvadurai grew up in a small town in Connecticut, after his family emigrated from India to the U.S. when he was 9 years old. Back then, he thought he would follow in the footsteps of his father, a mechanical engineer. But instead of building with gears and wires, Naveen found his outlet in a computer keyboard — where he could let his imagination run wild on projects that didn't cost money. In high school he built a rudimentary "chat" program so his parents could speak to him from various rooms in the house. When it came time to pick a college, he chose WPI specifically because its project-based approach emphasized creating tangible products.

As a freshman, Selvadurai was inspired by the calculus class he took with Professor Art Heinricher. "His teaching style made it fun," he recalls. "The class met in Olin 107, a big open hall with six blackboards, and 15 minutes after he started class, all six blackboards were full." Throughout his time at WPI, however, Selvadurai continually looked to the practical — when he studied systems engineering with now Computer Science Department head Craig Wills, he was able to directly apply the class material he learned by day on the systems he was programming at Sun Microsystems at night. "I was able to see how they were making a real operating system at Sun while I was learning the actual specifics of how such systems worked."

It was his MQP, in which he partnered with Sergio Salvatore '02 that charted his later course. Years before refrigerators and toasters came equipped with microchips, the two engineering students tried to design an operating system that would allow home appliances to talk with one another. "Technology is supposed to help us, so how do we advance that?" Selvadurai would ask himself. "Why shouldn't I be able to open the door with my cell phone or have

the air conditioning turn on just as I enter the house."

Despite Selvadurai's introverted personality, the two students became fast friends; Salvatore was impressed by his friend's quick intelligence and elegant solutions to engineering problems. After he graduated, Salvatore began working for Sony Music in New York, trying to develop an application that would allow users to bring their music with them on their mobile phones, and he recruited Selvadurai to help him with the work. "Once he was in New York, Naveen hit his stride," smiles Salvatore. "A lot of people gravitated toward him for the same reasons I did. He's fun to be around."

In New York, Selvadurai's social life suddenly blossomed. He began hanging out with a group of like-minded programmers who were similarly enthralled with the possibilities of mobile programming. A meticulous documenter of his social experiences, Selvadurai began making lists of his favorite places in New York—hacking Google Maps to create Web pages with which to share these places with his friends.

"We always called them Naveen's Places," remembers friend Chad Stoller. "Naveen's best date places, Naveen's best dinner places, or Naveen's best tea places." The more esoteric the find, the better it rated in his impromptu guides—and the more he could brag to his friends about finding them. "He would go to a restaurant because the short-order cook was in a band the rest of us had never heard of," laughs Stoller. "He had all kinds of inside information, but they weren't secrets he was trying to keep from people, rather tips he was sharing to influence people's decisions."

It's the ultimate irony, then, that when he did finally create something "cool," it would be a tool dedicated to pure socializing.

The Mayor of Cheers

Through his work at Sony, Selvadurai became intrigued by the potential of the mobile phone. "I was traveling a lot back then," says Selvadurai. "I went to Cannes, Tokyo, Malaysia, and I realized that with your phone and your passport you can go anywhere. We were all carrying something very powerful in our pockets: our phones—and they were going to get even more powerful." He started thinking to himself., "wouldn't it be cool if you had some way of using your phone to record places you visited in, say, Tokyo, so you could share them with your family?" After leaving Sony in 2007, he began exploring the idea, initially developing a platform to design scavenger hunts for some friends.

At the same time, he was sharing digs with Dennis Crowley, another whiz-kid inventor who produced one of the first mobile phone applications that combined text messaging with an early version of foursquare's "check-in" feature [his Dodgeball app was later acquired by Google]. The two began talking about creating a new app that would combine Crowley's check-in feature with some of the game elements Selvadurai was combining. At that moment, Apple released its new iPhone, creating a platform that not only allowed developers to create their own apps, but providing a device that was ideal for a location-based networking app.

Over the next year, the two spent countless hours huddled over their laptops at coffee shops and restaurants refining the idea—Crowley supplying the business savvy and Selvadurai handling the operating system and coding. From the beginning, Selvadurai was adamant that they develop a point system to give users a fun incentive to check into new places. But it was their friend Chad Stoller, an advertising executive who would later become an angel investor in the company, who provided the missing link. One day as the cofounders were working at Stoller's favorite café in the West Village, Stoller casually mentioned that it would be cool if there was some

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way that when you came into a place everyone knew your name—à la Norm from Cheers. "I'm here all the time," Stoller playfully boasted. "I should be mayor of this place." The idea clicked and became one of foursquare's signature features.

The Game Begins

Selvadurai and Crowley unveiled their new application in 2009 at South by Southwest, the popular Austin, Texas, festival, and from there it grew in popularity, but only in a handful of cities like New York and San Francisco, where there were enough check-in points and a critical mass of computer geeks who were interested in one-upping each other for mayoral rights at their favorite bars. Foursquare, however, didn't really take off until early 2010, when the company partnered with Bravo TV, which offered special "badges" to users when they ate at a restaurant frequented by a cook on Top Chef or shopped at a favorite store of the Real Housewives of New Jersey.

Since then, foursquare has added many more partnerships—more than 1,000 at last count—that offer special branded content from everyone from McDonald's to the Colbert Report. From the beginning, Selvadurai and his partners have wrestled with how to add these features without turning off their core followers. "If a user wants to follow Bravo, they will get Bravo stuff. But if they don't, they won't get anything—it's like Bravo doesn't even exist."

For businesses, foursquare provides a bonanza of customer information where users check in. Registered businesses can access a dashboard system that allows them to track the number of check-ins by users and offer special deals to their most loyal customers. "They can see the data and develop special promotions, and can truly say, 'I got this increase in traffic after running this special,'" says Selvadurai.

Right now foursquare's business service is free, a fact that has fueled rampant speculation on how the site might eventually make money. Last August the *New York Post* ran a breathless article saying that foursquare would soon be charging its 500,000 registered merchants for access to the dashboard, a supposition Selvadurai says is false. "Right now the idea is to sign up as many businesses as we can," he says. "After that we might come up with some interesting ways to monetize it," for example, charging for premium content that would give them access to more detailed customer demographics.

> The latest evidence foursquare is catching on? In August President Obama signed in to foursquare as a way for users to track his whereabouts during his re-election campaign.

That's probably the right approach, says Jeremiah Owyang, an industry analyst with Altimeter Group who tracks social media. "Their main focus now needs to be adoption, adoption, adoption," he says. "Increase functionality in order to bring more businesses and users into the fold. That should be the objective."

While 10 million users may seem like a good start, it's nothing compared to the 700 million on Facebook or even the 200 million on Gmail—both of which are starting to compete with location-based services. "We've seen incumbents move into the check-in space very rapidly," says Owyang. "Google, Facebook, Yelp. Foursquare has tremendous pressure to innovate and continue its momentum."

Industry analyst Tim Hickernell of Info-Tech is less worried about competition. Since users aren't likely to use more than one service to check in, he thinks foursquare will continue to lead the pack so long as Facebook and other sites continue to allow foursquare to post to their sites. But he also agrees that

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developer created a real-time dating service, matching up singles in close proximity based on the history of the places they like to visit.

Those who use foursquare are passionate about integrating it into their lives. Already there have been two marriage proposals made

becoming friends with the President of the United State—even if in a roundabout way—isn't a bad accomplishment for a computer engineer who once spent days not talking to anyone. But Selvadurai isn't resting on his laurels. Like Obama, he is hoping 2012 might be his year.

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PRIVACY IN THE
Age of Geo-Tagging

As anyone who has used foursquare can attest, racking up points and besting friends of Mayorships can be an addictive pursuit. But it also raises the question—what is foursquare doing with all that check-in information? "This notion of real-time location can become an important piece of private information that users may be concerned about," says Craig Wills, head of WPI's computer science department, who recently co-authored a seminal study on Internet privacy. "A lot of our work focused not on what information other users in a social network might see, but on what other entities might gain access to that."

In 2009 he and his co-author, Balachander Krishnamurthy of AT&T Labs, examined over 100 popular websites, and found that 84 percent of them, including such popular social networking sites as Facebook, LinkedIn, and MySpace, leaked private information to third-party "aggregators" such as doubleclick, which then used that information to track users across the Web and target them for ads on completely different websites. With a site like foursquare, the implications of that could be downright creepy. "If I am checking in at my favorite coffee place, and then later I visit CNN and get an ad for Joe's Coffee Shop, then that's a bit invasive," say Wills.

Selvadurai, however, assures users that the site doesn't share its information with outside third parties. "We build things that our friends want to use," he says. "So when we build new features and products, we think very hard about privacy." In addition to blocking aggregators, foursquare makes sure that users share only the information they want—offering them the option to make check-ins public or private, and encrypting all information shared across the network so it can't be intercepted by nefarious third parties. "There's no ability for stalkers to follow you," says Selvadurai. "At least not those you don't already know about."

Even retailers registered with foursquare get limited information about users—such as gender breakdown along with the first name and last initial of their most frequent customers. Users can opt out of providing even that much information, as they can opt out of sharing their information on other networks such as Facebook and Twitter. "We think about this all the time and we try to be as open as possible," says Selvadurai. "When we launch a new feature, we are very clear about how this stuff works—we lay it out in very clear language."

Wills praises the openness of foursquare's privacy policy, which he says goes beyond most sites—though he does caution that having an "opt-out" on features can sometimes be lost on users. "Ten percent will always make the choice to say no, 10 percent will make the choice to say yes, and 80 percent will make the default choice," he says. In addition, users should be careful of how their information is used by other social networking sites that might connect with foursquare's real-time location check-ins.

"It's obligatory for a site like that to tie into Facebook. The problem is you might not understand you are putting this stuff on your Wall—and, increasingly, on Facebook a lot of this stuff is public by default. You get this odd interplay between settings going on between multiple social networks." Some users may be completely fine sharing their locations publicly across other networks—or even getting targeted ads from Facebook or other sites based on those locations. "Some people say that is great, instead of getting a generic ad, they're getting one for something they want," says Wills, "but it does illustrate how much information is gathered in one place by a company that is trying to make money."

For users who are concerned about opening up their movements to public scrutiny, it's important to check their settings across all of their social networks. When in doubt, says Wills, opt out.

—Michael Blanding

foursquare must expand its offerings beyond check-ins and brand partners if it's going to capture a wider audience. "They need to get more targeted with their recommendations," he says. "Like, if you visit a store at a certain time, foursquare could recommend a certain place to have lunch, and then give you a code for a free dessert."

Foursquare is already experimenting with new features. Back in March it added recommendations to users, based not only on their own history but also the places visited by their friends. At the same time the company has shared its code with other developers who have used the system to design their own foursquare add-ons. One developer created a real-time dating service, matching up singles in close proximity based on the history of the places they like to visit.

Those who use foursquare are passionate about integrating it into their lives. Already there have been two marriage proposals made by check-ins at favorite spots. And users themselves created the idea of "foursquare day" on April 16, demonstrating a bit of math prowess in their selection, and getting more than a dozen real-life mayors, including the mayors of New York, Miami, and Atlanta, to issue foursquare proclamations. "Users have taken this to a level we never thought possible," says Selvadurai.

The latest evidence foursquare is catching on? In August President Obama signed in to foursquare as a way for users to track his whereabouts during his re-election campaign.

Becoming friends with the President of the United State—even if in a roundabout way—isn't a bad accomplishment for a computer engineer who once spent days not talking to anyone. But Selvadurai isn't resting on his laurels. Like Obama, he is hoping 2012 might be his year.

Shaking Whispers from the Walls

LIKE A SCIENCE CENTER TWISTER, NINA SIMON '03 IS USING CREATIVE TECHNIQUES AND WEB 2.0 TACTICS TO STIR UP MUSEUMS, MAKING THEM MORE INTERACTIVE AND, WELL, MORE FUN.

By Kate Silver | Photography by Kevin Scanlon

WITH HER YOUTHFUL UNTAMED CURLS AND STYLISH GLASSES, something about Nina Simon '03 bellows, "color outside the lines!" The energetic 30-year-old brunette is the kind of person you can visualize leading a singing flash mob down the halls of the Santa Cruz Museum of Art and History, where she's executive director. Since graduating from WPI with a BS in electrical engineering, Simon has been busting through museum staff stereotypes as she works to energize museums, shaking the whispers from the walls, unbuttoning that top button (or two), and filling institutional dinosaurs with life. In the process, she's stirring up the industry like a science center tornado.

Shadows
Whispers
Walls

Judging by recent statistics, that's a good thing.

According to a study released by the National Endowment for the Arts, museum attendance is dwindling, and those who are still visiting are older and whiter, on average, than the United States population. In 2011 the American Association of Museums released a report that found more than 70 percent of American museums experienced economic stress last year. More than half of them experienced a decrease in funding—particularly government funding.

If something doesn't change, Simon worries about the future of museums. "I think if museums go with the status quo, they will be in danger," she says.

Described as a "visionary" by *Smithsonian* magazine, Simon sees museums as community gathering places that should do more than just pay tribute to the community they're in. They should engage that community, even change with it. With Web 2.0 as her inspiration, Simon aims to do for museums what the participatory online model did for the Internet: transform it from a flat, passive experience into an active adventure, where each user's experience builds upon the last; break free of the stiff, whisper-filled museum walls we grew up with and create meaningful places that are ever-changing, just like us. To Simon, a museum experience goes far beyond the relics that hang from its walls.

"A lot of what I'm trying to do is break down the notion that a museum should be an elitist space for a certain kind of experience and just say no to that," says Simon. "Museums are places to explore, places to connect with creativity and culture—no matter who you are, no matter where you come from, no matter how much education you have".

A REAL-LIFE EDUCATION

When Simon was 16, growing up in Los Angeles, she wanted to drop out of school and design pinball machines. She was a creative kid, the daughter of artists—her dad is Screamin' Scott Simon, a member of the band Sha Na Na, and her mom wrote educational films for Disney—who made good grades, but she was never impressed by the structure and formality of the classroom. "I was always suspicious of the gold stars," she says. One of the formative books she read as a teen was *The Teenage Liberation Handbook: How to Quit School and Get a Real Life Education.*

"While I was in high school, I became really interested in non-traditional forms of education and learning," she says. Museums always provided her a kind of "real-life" education. She loved places like the Exploratorium in San Francisco and the Museum of Science in Boston. People are there by choice, learning at their own pace, according to their own interests, and they're not graded on it.

In fact, her embrace of free-spiritedness and independent thought led Simon to WPI. "I don't know if you want to print this, but I got into MIT and Stanford and Berkeley," she says, "I wanted to come to WPI because of its project-based education."

She flourished on campus. She befriended many of her professors and was impressed that they truly valued and supported her forging her own educational path. Although she would eventually graduate with a 4.0 and a degree in engineering, she said it was the deeper lessons she learned at WPI that really made a mark.

"A lot of people extol the virtues of having a liberal arts education. There's no doubt in my mind that there are positive things that come from that. But I also think there are positive things that come from having an engineering education that focuses on problem solving," she says. "When you see a challenge or some intractable thing, you don't just think, 'Oh, let's talk about this a lot.' You think, 'Well, let me try to figure out how I can attack this, how I can try to solve it.'"

That's just the approach she's taking toward museums.

ENGINEERING SOLUTIONS

After graduating from WPI, Simon heard that the highest paid people starting out in museums were those who posed, often nude, for drawing classes. The first money she earned didn't come from designing exhibits, planning programs, or even taking tickets. It came from modeling. She would regularly model at the Worcester Art Museum, making $20 an hour to stand still and eavesdrop on art lessons. "It was like getting paid to process the day in a lovely setting," she says.

By day, she volunteered at the Museum of Science in Boston and at the Science Discovery Museum in Acton. For months, she did everything from managing volunteers to designing exhibits to cleaning Plexiglas. She did well enough that they decided to give her a paycheck.

"I think everybody was a little surprised when I graduated with an

engineering degree and then took a $7-an-hour job at a science museum," she smiles. Still, she knew that was where she wanted to be.

At 23, she was hired by the International Spy Museum in Washington, D.C., as an "experience development specialist." She helped plan and create an interactive experience called "Operation Spy," which she describes as "a cross between an episode of 24 and a theme park." Guests would act as intelligence officers and make their way through a mix of puzzles, games, and psychological challenges, including a lie detector test. Simon worked with the contractors, created the story lines, and wrote the scripts.

Around that same time, she'd started a blog called Museum 2.0, (museumtwo.blogspot.com). It was 2006, and the idea of user participation was in full force, thanks to Web 2.0 and sites like Facebook, Twitter, and Wikipedia. On her blog, Simon pondered how that concept could also apply to museums. In her first blog entry, dated Thursday, November 2, 2006, she wrote, "What are the possibilities and challenges in creating 'an architecture of participation?' This blog will explore the ways that museums can and do evolve from 1.0 (static content delivery machines) to 2.0 (dynamic content aggregation and network machines)."

Simon's blog did more than just explore it. It became a breeding ground for discussion among colleagues and enthusiasts across the world. While its aim was to help shape museums though user participation, the blog itself was transformed in the same direction.

Simon was so energized by the blog's momentum that when "Operation Spy" opened at the museum, she left her job in D.C. and moved back to her native California to further develop her participatory museum passion. Museum 2.0 became the name of her design firm, where she worked as a consultant with museums, libraries, and other hubs of culture to create, well, really cool stuff: an interactive online game to coincide with season 4 of CBS's *CSI:NY*; an exhibition at the University of Washington on "advice," featuring a visitor-run advice booth; creating the curriculum for Girls, Math and Science Partnership's technology-focused Click!, an urban science adventure camp; using crowd-sourcing to design a 3,000-square-foot interactive gallery at The Tech Museum in San Francisco, and more.

Simon's blog did more than just explore it. It became a breeding ground for discussion among colleagues and enthusiasts across the world.

During that time, she wrote the book *Participatory Museum*, which was a participatory experience in and of itself. While writing the book, Simon posted it online as a wiki, inviting the audience to add to and edit the work. She had no idea at the time that it would become a manifesto for change in museums. The book went on to sell more than 3,000 copies in the first year (quite a coup in the industry), and was named "museum education book of the year" by the Museum Education Monitor. It's now used as a text by at least 20 graduate programs in eight countries (that she knows of).

The book and blog are beloved by industry insiders everywhere, including Eric Siegel, who met Simon at a museum conference soon after she graduated from WPI. At that time, he was president of the National Association for Museum Exhibitions and director and chief content officer for New York Hall of Science, where he still works.

Siegel, who is an active voice on the Museum 2.0 blog, says that Simon stands out in the industry because of the tangible difference she makes at museums. He says she has a true knack for breaking down barriers and putting museum exhibits and spaces to use as a catalyst for conversation, rather than the whisper zone of yesterday.

"I think her real passion is about building community." he says. "Museums can do that and Nina is really leading the way in that." In fact, Siegel says that her efforts have helped bring a renewed interest in museums from a younger population.

"She has a lot of real fans in museums today, there's a lot of people who look up to her, particularly young museum professionals," he says. "For people in their 20s, particularly young women who are in their 20s, I think she's really a role model. That's a big deal."

UNDER THE INFLUENCE OF CREATIVITY

When Simon accepted the executive director position at Santa Cruz's Museum of Art and History in May 2011, she stopped consulting in order to truly focus on this community museum. In a matter of months, she's made a number of seemingly simple but highly effective changes, bringing renewed interest to what was considered a tired approach. She put up a comment board so that visitors can make suggestions. She brought in local artists to paint murals, and added a lounge and puzzle room where visitors can sit and relax. She put chairs and couches throughout the museum, so it feels like a home. Already, she's seeing people interact with one another more. They're reading in the lounge, or helping a stranger with a puzzle. They're no longer zooming through the museum, as they did in the past.

In coming months, she has bigger plans. There will be an urban scavenger hunt by bicycle, drop-in art workshops, a "Creativity Under the Influence" class that pairs drawing with wine, craft nights, a sculpture park, and other workshops, demos, and performances to draw in new audiences.

As Simon continues to make strides at the museum, creating a space that's relevant and reflective of the Santa Cruz community, she thinks back to her days at WPI, and relates much of what she's doing today to what she learned there. All of her progress is based on experimentation, prototyping, and testing. As she opens the doors to the Santa Cruz museum wider and wider, she's excited to see just what might happen. In her eyes, the museum isn't as much about history and art as it is about creating community.

"I think everything is about who the audience is," she says.

Nina Simon's Top Five Participatory Museums

We asked museum mover and shaker Nina Simon '03 to pick her top five participatory museums in the U.S. Here are her selections, in her words:

THE WING IN SEATTLE This is an incredible community-driven museum in which all exhibitions are created by and with community members about issues relevant to them. The result is very current, very provocative exhibitions on everything from garment workers to the refugee experience to religious intolerance. *www.wingluke.org.*

THE NEW CHILDREN'S MUSEUM IN SAN DIEGO This place is fascinating. They take a contemporary art approach to interactivity. Their entire building shows a thematic exhibition on a big idea like "animals" or "garbage" and they commission internationally recognized contemporary artists to make their exhibits. It's not unusual to see kids crawling all over a climbing wall designed by Brooklyn artist Sun Kwak or zooming around on vehicles created by Roman de Salvo. *thinkplaycreate.org.*

BROOKLYN MUSEUM These guys are rock stars when it comes to digital participation. They do a fabulous job inviting visitors to participate in everything from image identification to sharing their experiences to selecting works that will be shown in the museum. *brooklynmuseum.org.*

THE MINNESOTA HISTORY CENTER This is a big, state museum with a thoughtful approach to visitor participation. Their Greatest Generation, and MN150 exhibitions all involved heavy visitor and community participation, often including contributions from throughout the state. *minnesotahistorycenter.org.*

THE COLUMBUS MUSEUM OF ART This is an unpretentious, excellent art museum with a surprising number of interactive components to invite people to make their own art, play games with art, and learn more through participation. *columbusmuseum.org.*

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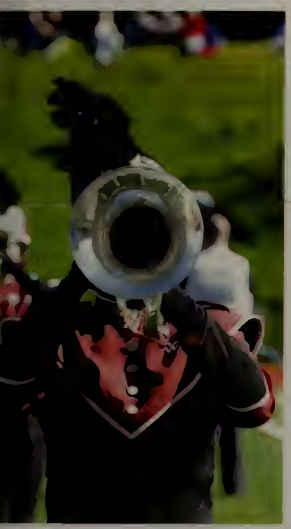

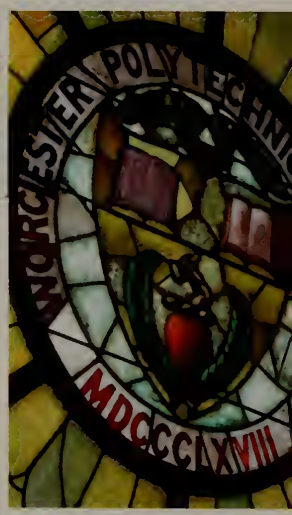

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Inducted 35 years after his death.

Our secrets are safe with him!

For 100 years a secret society of humble, thoughtful people have moved stealthily through the WPI campus doing nice things for others.

A Century of Do-Gooders

by W. Polly Teknick

ILLUSTRATION BY DAVID FULLARTON

Ask a Skull member about the secrets of the secret society, and they'll swear there aren't any. They'll insist that The Skull is nothing more than a congenial bunch of humble do-gooders who prefer to operate "under the radar" for the benefit of WPI. Nothing more, nothing less.

But ask too many pointed questions, especially of younger members, and you'll start to get vague answers ("Gee, I don't really know anything about that...") followed by shifty eye movement and some really bad acting.

Pry too much, and you'll wonder if they're beginning to circle the wagons. For instance, while researching this article, your humble scribe was sent to on a wild goose chase through obscure papers in the WPI archives by a well-respected member of the Gordon Library staff—who just happens to be a member of Skull. A bit of innocent note-taking during a Skull event triggered a rapid alert that spread instantly through the ever-vigilant network. Most mysteriously, notes for this story emerged from a WPI-networked laser printer with sections blacked out, as if redacted by the CIA. (I kid you not.)

So, how much can we non-Skulls really know about The Skull?

A Hundred Years Ago

The year was 1911. A junior named George Dixon had an idea: select classmates for an honor society, where outstanding leaders from the junior class could be brought together as seniors to pool their energy and resources in service to WPI. Dixon remained highly engaged as Alumni Association president, Annual Fund chair, and trustee. He also continued to guide Skull, along with classmate and co-founder Ralph Taylor, until his death in 1956. Dixon's papers reveal a meticulous record keeper and a tireless supporter of the Institute. But they reveal virtually nothing about his intentions for Skull.

One hundred years—and more than 1,000 members later—the organization celebrated its centennial on the weekend of July 16, 2011. The highlight was a gala dinner at Worcester's grandly restored Union Station—which also turned 100 years old this year. Honorary chair of the Skull centennial celebration Bill Grogan '46 paid tribute to six non-Skulls for their devoted contributions to WPI. The inaugural George P. Dixon Award was bestowed upon Skull's own "odd couple"—their term, not ours—former advisors Van Bluemel (physics professor emeritus) and Bill "Tuna" Trask (retired director of placement/associate dean of students). The weekend also featured activities on campus, including an Open House in Skull Tomb. ("Open House" turns out to mean open to Skull members and spouses only; friends or reporters not allowed.)

The Tap

In Dixon's time, WPI was so small that Skull members could file into Alden Memorial for general assembly, dim the lights, and circulate slowly through the awed audience to tap new members. A group of black-robed Skull members, their faces hidden by the darkness of their deep hoods, come up behind unsuspecting inductees and tap them (which is described by some members as a 'whack' and by other members as a 'gentle pat' on the back). Today, with a larger student body, it takes a bit more strategy to locate and ambush inductees, particularly since the tappers still show up looking like a gang of grim reapers.

Sigma Pi Epsilon president Zach Garbowitz '12 remembers when he was tapped. He'd received an urgent summons to return to the fraternity house. "I thought it must the police," he recalls. "I figured someone was hurt, or had gotten into trouble. So I rushed down

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The Shocking Secrets of SKULL

Over the years Skull has taken its share of ribbing about its secrecy, particularly from the student newspaper on April Fool's Day. But the organization isn't as secretive as some claim. In fact, here are 10 things that Skull members actually want you to know.

1 It is the third oldest campus organization, (behind only the Glee Club and the student newspaper, also founded in 1911, which loves to poke fun at Skull's mysteries.)

2 Skull Tomb—the former Magnetics Laboratory—became the organization's headquarters in 1921. It is rumored to contain everything from victims of Robert Goddard's secret experiments to the live goat that was WPI's original mascot. What goes on there will never be known, but it can be revealed that it sometimes involves coffee and Danish. How macabre is that?

3 This is no old boys' club. Skull went co-ed as soon as WPI did. Lesley Small Zorabedian '72, WPI's first female undergraduate, was tapped in her junior year. (Yale, by contrast, allowed women into its Skull and Bones only under duress, in 1991.)

4 Skull's first honorary (non-student) member was Rear Admiral Ralph "Prexy" Earle, WPI's sixth president, tapped in 1931. Since then, membership has been extended to faculty, alumni, trustees, and staff, including the beloved ATO cook, Marie "Ma" Fell.

5 If you think you have what it takes to be a Skull—you don't. Those who daydream about getting the tap can dream on. Faculty advisor Bland Addison puts it this way: "The students who are selected are genuinely surprised. Others may see them as outstanding, but they have that sort of personality and attitude that they don't see themselves as stars."

6 If you're not tapped in your junior year, there's still a chance. Devoted alumni are sometimes tapped decades—even half a century—after graduating!

7 Actually, it's never too late. The author of WPI's Alma Mater, Willard Hedlund (Class of 1910), was tapped 35 years after his death. And he knew the founders personally.

8 Skull's overt activities include running the Rope Pull, singing in the Alma Mater competition, and nurturing other campus traditions.

9 The Skull Trophy, given for extraordinary spirit and service in the recipient's freshman year, is meant to inspire students to do more for WPI. It does not, however, guarantee future Skull membership.

10 Skull would never tell, but your alumni magazine will. For its 100th Anniversary, Skull raised a $240,000 gift for WPI.

and was told, 'They're in the basement.' I thought, Why the basement? I went down the stairs, came around the corner, and saw a circle of black robes. That's when I knew."

The late Nils Hagberg, a beloved WPI security guard with 40 years of service, was tapped while making his rounds. "A bunch of Skull members approached me," he told the *WPI Journal* in 1974. "I figured they wanted to get into Boynton Tower, so I reached for my keys. Then someone whacked me across the back, I turned, and there was Bob Wagner grinning ear to ear, saying 'Welcome to the Club.'"

"I had no idea who was under the hood," says Joe Mielinski '87. "I saw these two hands reaching out, and they were shaking." The hands, trembling with pride, belonged to his father, Joe Mielinski '61, who had the rare honor of tapping his own son.

"The night I was tapped, I had tears in my eyes," says Al Papianou '57, who was tapped 40 years after he graduated. The late Sam Mencow '37 was almost 80 years old when he was selected for Skull. He became an inspiration to his 20-year-old classmates by showing up for every single initiation rite, even in the middle of the night, even in the freezing cold.

Skull's initiation has been rumored to include horrific tortures, such as being buried alive, or sleeping in coffins. "Oh, man, no!" laughs Sean Seymour '09. "Outsiders always think it's worse than it is. Although there was one person in my class who was terrified about coffins the whole time."

"Our rituals are educational," says faculty advisor Bland Addison. "They involve keeping alive the traditions and lore of WPI." As for assertions that the robes invoke malevolent societies, such as the

Klan or the mafia, he scoffs, "It's just for fun. Think Harry Potter or medieval monks. The robes reinforce the rite of passage that induction represents. They also add a little theatrics."

What's Under the Hood?

Although outsiders profess to know the rules for Skull selection and delight in making predictions on the next class, members insist that there is no formula. Addison and co-advisor Chrys Demetry '88 stress that the selection process seeks those who take pleasure in doing good things for WPI, but shun the glory.

"People aren't selected because they want to get into Skull, or because of some written mission statement," says Addison. "They're selected because they're that sort of person, the type who's committed to making the community better." The true Skull type, Addison says, would never be disappointed at not being selected. "They would be out congratulating the people who had been tapped."

During questioning about the true work of Skull, the advisors hesitate frequently and exchange glances, as if weighing their inherent nature toward helpfulness against Skull's mandate for secrecy. "A Skull member will see a problem or opportunity on campus and, without calling attention to themselves, will call on their resources to get something to happen," is about as specific as Demetry gets.

"It's not a conspiracy," adds Addison. "But it's *sub rosa* when it happens. Skull's ambition is not to make Skull look good—our ambition is to make WPI better. Skull members are not interested in anything coming back to them. That's why they're reluctant to talk about what they do. It would embarrass them. They're just happy to be doing it."

But what if a magazine offered to do a big, glossy feature story on Skull? With great photos and lots of quotes and name-dropping? Addison smiles and shakes his head no, a beguiling anomaly in this era of 24-hour self-promotion and endless Twitter announcements.

While Skull members state the group has no mission statement, if they did it might be drawn from the closing paragraph of *Two Towers*, the official history of WPI, where it is written that WPI stands solidly atop its rounded hill because "there have always been enough people who cared."

"We try to be among those people," Demetry says quietly.

"We don't try," Addison asserts. "We just are. Someone else brought us together—and that makes it all possible."

W. Polly Teknick is the pseudonym used by Transformations *editor Joan Killough-Miller, who bravely went undercover to get this story, and whose identity has been disguised by WPI's Witness Protection Initiative (WPIWPI).*

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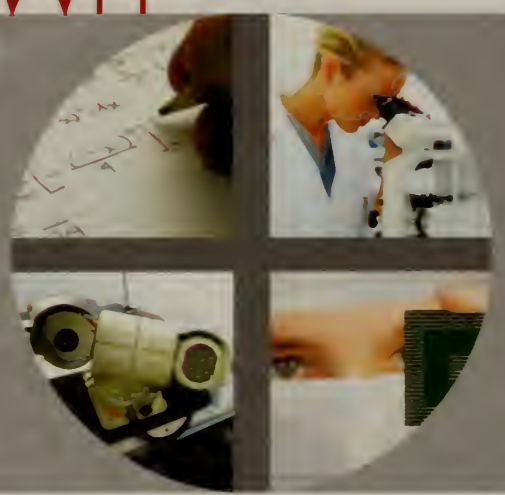

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mastering the course

Mark Mungeam '83 charted his own course when it came to his profession—which is the same approach he takes when designing a world-class golf course.

by john shaw

photography by kathleen dooher

To the average golfer, the placement of sand traps and water hazards on a course can seem like an insidious plot that will guarantee a round filled with double bogeys and major frustration. ➔

To golf course architect Mark Mungeam '83, it's almost an afterthought.

"So little of designing a golf course involves what to put around the greens," says the owner of Mungeam Cornish Golf Design Inc., in Douglas, Mass. "I think about trying to make each hole a challenge for the golfer who shoots a 76, as well as the golfer who shoots a 126. It's like putting together a jigsaw puzzle."

The puzzle begins to take shape when he arrives at a proposed location. Eschewing modern technology like satellite photography, and armed with just a simple topography map, Mungeam walks the land. He first concentrates on locating the greens, then moves on to transforming the rest of a typical 350 acres of woods and meadows that make up the typical award-winning golf course that has marked his quarter-century in the business.

"It's still very important to get an understanding and a feel for the vegetation and the soil conditions, of what kinds of environmental restraints you might have to deal with," notes Mungeam, who took several biology and design courses while completing dual degrees in civil and environmental engineering. "It's not like I know where everything is going to be, but I can see a piece of land, figure out how to take advantage of what's available, and make a good golf course."

High-profile architects like Robert Trent Jones, and firms with the name of Hall of Fame golfers Arnold Palmer and Jack Nicklaus, are well known to the average golfer. But Mungeam's work has not gone unnoticed by golf insiders, people who recognize the broad range of skills needed to create an outstanding course.

"Mark has a well-respected reputation for building golf courses that are technically sound," says Chad Ritterbush, president of the American Society of Golf Course Architects. "He pays attention to the details, and delivers a good product. He does it the right way."

The list of award-winning courses Mungeam has designed includes Shaker Hills in Harvard, Mass., LeBaron Hills in Lakeville, Mass., Owl's Nest in Campton, N.H., and The Golf Club at Oxford Hills, Conn, which was rated the third best public access course by *GolfWeek* magazine. At Charleston Springs Golf Course in Monmouth County, N.J., the two 18-hole courses he built received a 4.5 out of 5 star ranking from *Golf Digest* magazine, along with the designation of one of the best places to play in 2004 - 2010.

He also can point to work at courses like the Olympia Fields Country Club in Chicago, where he led major renovations in preparation for both the 1997 U.S. Senior Open and the 2003 U.S. Open.

While Mungeam professes not to rank his work, he has a special place for Cyprian Keyes Golf Club in Boylston, not far from WPI. With wetlands spread throughout more than 20 percent of its 235 acres, Mungeam's skills were tested, for he had to design a course that could meet the standards of course superintendent Richard Zepp, a 1973 WPI graduate.

"Mark designed this course so that it not only utilized all of the land's natural elements, but he took into account what would

▶ A Course of Study

Mark Mungeam didn't choose his major in a traditional way as he entered WPI in 1979.

"When I was in high school, I wanted to get into wildlife management or natural resource management, or become a park ranger," Mungeam recalls. "My parents and guidance counselor told me that I should have higher aspirations. I was good in math and science, and I saw that WPI had classes in environmental engineering, so I thought, 'Maybe I should get into that.'"

He eventually added civil engineering as his main academic focus, but says the structure of his IQP and MQP allowed him to load up on electives like construction project management, land planning, and biology. Those classes, taught by such faculty as Malcolm Fitzpatrick (who was also his advisor) and Fred Hart, interested him even though he hadn't a clear idea of how they might help him after he graduated. Taking them proved to be a prescient decision.

"I utilize all those disciplines in my business," Mungeam said. "Often we're planning golf holes within a housing development where I have to incorporate roads and drainage systems, things like that. You need a broad background to do well in this industry."

The biology courses helped his work with wetlands, plant materials, and even choosing the best kinds of grass seed to suit a course's environmental footprint. It also has come in handy to help smooth the permitting process with town conservation and planning boards, which can be a challenge. But in the end, he's judged on the final product.

"No one cares about how a golf course gets built, or what issues we had to deal with, or the money spent on it," said Mungeam. "If the owner gets good value, and golfers like it, that's all that matters."

make it easiest to maintain after he finished," says Zepp, who has managed Cyprian Keyes since its 1996 construction. General Manager David Frem, whose family hired Mungeam, adds, "This course is as fundamentally sound as when it was first built. It has stood the test of time."

CHARTING A CAREER COURSE

The only one in his family to play golf, Mungeam was a member of the varsity golf team during his days at WPI. "I wasn't one of the better players, but I did play," he says, revealing only after some prodding that he had a nine handicap, something most golfing enthusiasts can only dream about.

In the summer between his sophomore and junior year, he landed a job at the small, nine-hole Berlin Country Club in his home town, where he quickly was promoted from mowing fairways and raking bunkers to overseeing all course maintenance and assisting with daily operations. Noticing that Mungeam also sat on the town's Conservation Commission and thus understood environmental issues, the owner asked him to draw up plans to double the size of the course.

Using a copy of *The Golf Course* by Geoffrey Cornish, a renowned Massachusetts-based course architect, Mungeam created a design that was warmly received but went nowhere due to lack of funding.

While Mungeam professes not to rank his work, he has a special place for Cyprian Keyes Golf Club in Boylston, not far from WPI.

No matter. "I decided it was something that could be a lot of fun, and I decided that I would work my way into that field," he says.

During his senior year at WPI, he wrote to several course architect firms. Cornish, who was one of the few to respond, thought Mungeam's civil engineering background would help him in his job search, and it did when he landed a job at Moore Golf Inc., a national golf course construction company based in Virginia. After moving to a Florida rival two years later, where he oversaw construction of several courses around the country, he felt ready by 1987 to begin designing his own courses.

Ironically, he then received a call from Brian Silva, who had recently partnered with Cornish, who was looking for help for the busy firm. Soon Mungeam was headed back to New England, thrilled for

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the chance to learn from Cornish. He cites an early project he oversaw in upstate New York in which he actually used a bulldozer to create all 18 greens, giving him the type of unique experience few golf architects have. "It was so invaluable to learn from the ground up, to know how to put together a course from start to finish," he says. "That has helped me my entire career."

THE CEREBRAL APPROACH

Golf architecture is subject to the same follow-the-leader fads as any other industry. Mungeam's first designs featured tighter fairways and small greens, known as "target courses," that punished those golfers who take a "grip it and rip it" approach. Recently, architects have returned to the links-style look that Mungeam prefers, featuring unkempt bunkers and large greens surrounded by tall grasses, which forces players to take a cerebral approach and consider such things as approach angles and how a ball will play on the slope of the green.

Expectations have also has changed over the past two decades. Whereas earlier golfers would be satisfied to walk and play municipal courses that generally have few amenities, today's player expect so much more: riding carts and smooth paths, grounds that feature spectacular views, groomed fairways, and, of course, closely cropped greens. But it comes at a steep price: because of stricter environmental regulations, and land that is increasingly difficult to find and more expensive to develop, the cost to build a new golf course can now run over $10 million dollars and take more than four years to complete – resulting in greens fees upwards of $100 in order for course owners to recoup their investment.

. . . architects have returned to the links-style look that Mungeam prefers, featuring unkempt bunkers and large greens surrounded by tall grasses which force players to take a cerebral approach.

"Obviously we need to protect our natural resource and endangered species. Sometimes the best golf holes may not be possible because of habitat areas, say, for turtles, or you can't play across a wetlands area," explains Mungeam, who has actually walked away from projects with too many obstacles to meet his demanding specifications. "You try to create holes in which you can impact these areas in the least possible way. It's more expensive to construct a golf course than ever before, and because of that there's going to be fewer golf courses built."

While there are obvious advantages to having his name attached to a course built from scratch, he also gets much satisfaction from modifying existing courses that can range from adding a couple of water hazards to reworking all the greens. Currently, he is working on 10 upgrades throughout New England, preferring not to venture overseas, where most of the new courses are being built. That would take him away from his wife and five children for months at a time, something he has no interest in.

The 14th hole at Owl's Nest in Campton, NH.

PHOTO BY GEORGE PEET

Another Mungeam designed course, the Oxford Greens Golf Club in Oxford, Conn.

Staying stateside also allows him the chance to play a few rounds when time permits, although his handicap has risen over the years to a still-respectable 15. That's about the same as former President Bill Clinton, who was Mungeam's playing partner during the 2004 grand opening of Hudson Hills Golf Course in Westchester County, adjacent to Clinton's adopted town of Chappaqua, N.Y.

So what about that notion of politicians having a reputation for bending rules? "Cheating? I didn't see it. He was just one of the boys," Mungeam recalls with a laugh. "Sure, he had a mulligan here or there, but he didn't do anything like kick his ball or tee it up in the rough. It was an amazing experience."

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RICHARD K. ALLEN '76, chief operating officer and senior vice president for global operations at Stantec, one of the largest environmental science firms in the country.

WILLIAM L. ANTHONY JR. '61, partner in the Silicon Valley Office of the firm Orrick, Herrington & Sutcliffe and a member of the firm's Intellectual Property Group.

STUART C. KAZIN '61, retired senior vice president of Worldwide Operations and Administration at Lotus Development/IBM Corporation.

JOSEPH E. LAPTEWICZ JR. '71, former president of and current technical advisor to Empi, Inc., a manufacturer and provider of noninvasive medical products.

CLAUDE P. MANCEL '71, former vice president for research and development for global home care at Procter & Gamble.

Herbert F. Taylor Alumni Award for Distinguished Service to WPI

JOHN J. GABARRO '61, member of the Management Executive Council; volunteer for WPI admissions, reunions, and fundraising events for many years.

HANS H. KOEHL '56, class agent, reunion and fundraising volunteer

MORGAN R. REES '61, former president of the Alumni Association, Class Board of Directors and Poly Club, reunion and fundraising volunteer, member of the Civil and Environmental Engineering Advisory Board.

MERRILL E. SPILLER JR. '51, class agent, member of Class Board of Directors, reunion volunteer, maintained class website for many years, photographer at 50th and 55th reunions, treasurer of Tech Old Timers.

MICHAEL P. ZARRILLI '71, class agent, Regional Council representative, Steering Committee member for the President's Advisory Council (now President's Circle), WPI trustee since 2000.

WPI Award for Distinguished Service

WARNER S. FLETCHER, WPI trustee since 1993, Worcester civic leader, tireless advocate for WPI and its Worcester Community Project Center.

John Boynton Young Alumni Award for Service

LAURA M. AMODEO '06, member of the Alumni Association Board of Directors and Annual Fund Board; reunion volunteer and Hartford/Springfield Alumni Chapter participant.

MELISSA M. (LICHWAN) BESSE '91, Alumni Association Cabinet member, career mentor, reunion volunteer, and WPI event host.

KATHLEEN A. (DALY) PEREIRA '96, Alumni Association Cabinet and Board of Directors member, Annual Fund Board member, Class Agent, Graduates of the Last Decade Council member, and reunion volunteer.

2011 Alumni Award Recipients:

1. Keith Barrett '96
2. Melissa (Lichwan) Besse '91
3. Gerald Burns Jr '91
4. James Gannoe '91
5. Laura Amodeo '06
6. Megan Wallent '91
7. Rev. Peter Scanlon
8. James Baum '86
9. James Fee '65

Ichabod Washburn Young Alumni Award for Professional Achievement

GERALD L. BURNS JR. '91, CEO of Data2Logistics, LLC, a Platinum Equity company that provides Fortune 1000 companies with actionable information captured from freight bills.

KEITH A. BARRETT '96, vice president of technology and chief technology officer at Shareholder.com.

JAMES P. BAUM '86, executive vice president and general manager at Parametric Technology Corporation, former president and CEO of Endeca, president and CEO at Netezza Corporation, where his work ultimately drove the acquisition of Netezza by IBM in a 2010 transaction dubbed "the most disruptive acquisition of 2010" by *InformationWeek*.

JAMES R. GANNOE '91, cofounder and president of Extremity Medical, an orthopedic device company specializing in the development of next-generation fixation and arthroplasty systems addressing needs in the distal extremities.

MEGAN WALLENT '91, lead program manager for Internet Explorer at Microsoft

William R. Grogan Award for Support of the Mission of WPI

JAMES F. FEE '65, co-founder of the WPI Venture Forum, which provides educational programs to entrepreneurs working to commercialize their ideas and inventions. (posthumously)

The Goat's Head Award for Lifetime Commitment to WPI

REV. PETER J. SCANLON, longtime WPI chaplain.

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CAREER CORNER

How's Your 'Indispensability Profile?'

E HEAR THREATS OF A "DOUBLE-DIP" RECESSION. Congress continues to debate everything from debt ceiling to credit ratings to Social Security. Unstable global economies threaten the status quo. And for the WPI community of real people holding real jobs, it may drive many of us to bury our heads in the sand and wait for the storm to blow over. While that's certainly one strategy, I recommend another approach that will give you better control of your future. It centers on understanding your Indispensability Profile. What's that, you ask? Follow these simple steps and you'll find it:

- Know Your Accomplishments. Make a list of every specific accomplishment you have achieved since your last performance review. Do not generalize. For each, answer this question: "If I had not done this, what would have happened?" Your manager may forget your accomplishments, but you shouldn't. Did your decisions save money or increased productivity? Continue to add to your lists of accomplishments, and soon you'll see your "Indispensability Profile."
- Study your company's current activities: Is business expanding or retracting? Where is the company growing? Are you where you want to be? If not, how can you get there? What expertise do you have that would fit? Make a plan that starts now.
- Make appointments with the appropriate people. Meet with your current manager to review your latest contributions so they are top of mind (before any reductions-in-workforce take place). Also, meet with managers and peers for informational purposes to learn more about the company and how your skills fit their needs. Strengthening your network starts now.

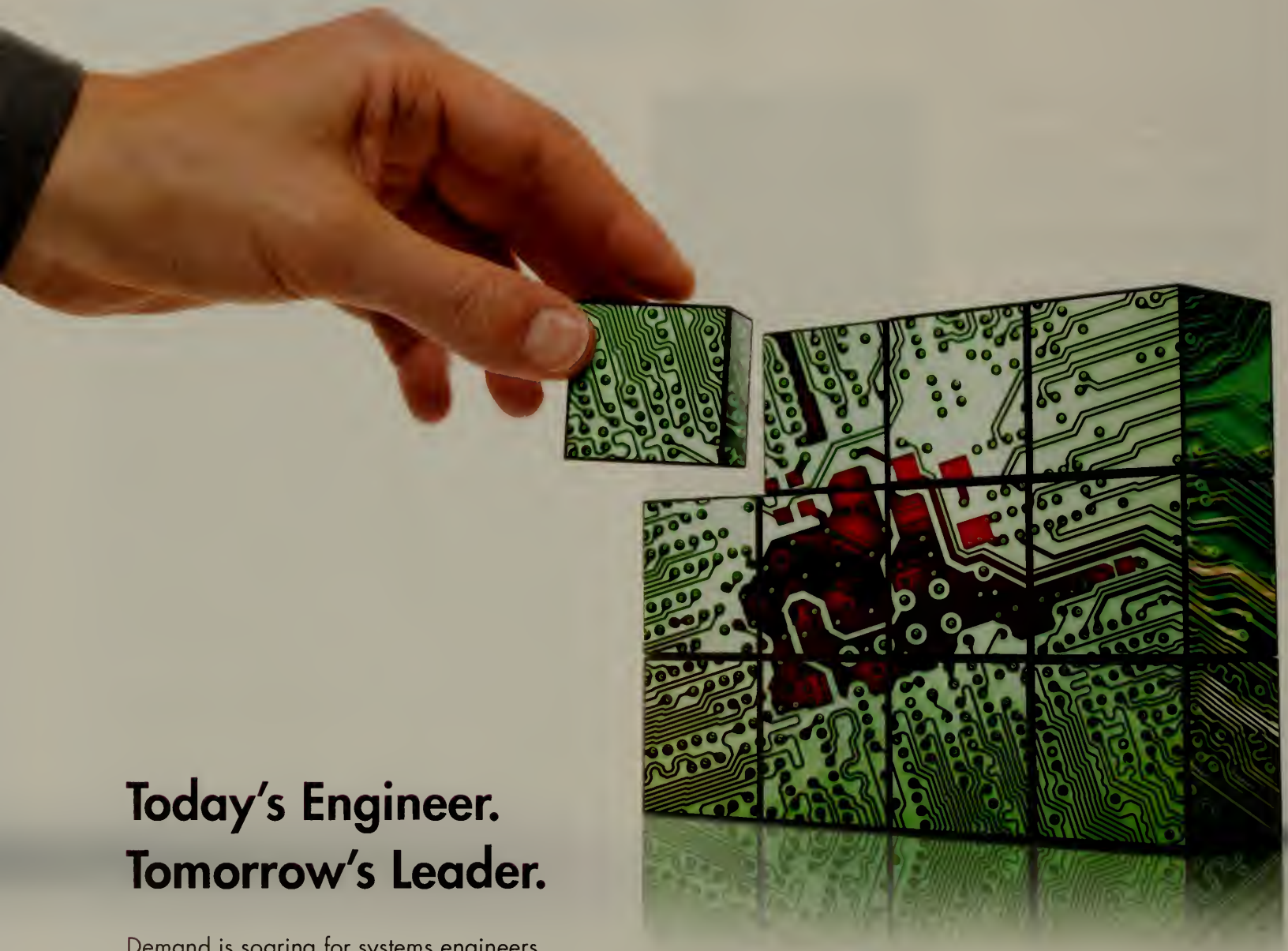
Knowing your Indispensability Profile, and preparing now, increases the odds that you will find yourself gainfully employed should layoffs occur. —*Connie Horwitz*

Connie Horwitz is Associate Director of WPI's Career Development Center. Contact Connie at CDCalumni@WPI.edu

WPI

Systems Engineering: The Best Job in America*

Earn a Master of Science in Systems Engineering Online



Today's Engineer. Tomorrow's Leader.

Demand is soaring for systems engineers. Fast forward your career through a virtual return to WPI. Designed for busy professionals and taught by seasoned real-world experts, our online program delivers practical knowledge in a flexible platform. You earn a degree with the same rigor and prestige that has made WPI a leading technological university for nearly 150 years.

For more information, contact:

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* As ranked by Money/Payscale.com's list of great careers (money.cnn.com).

THE VIEW FROM THE HILL

From the Alumni Association President

DEAR ALUMNI AND FRIENDS,

I am delighted to thank our generous alumni for their support of our alma mater. Last year was one of the most successful fundraising years ever for WPI: $30 million in commitments were received. Some of the highlights: $6,316,704 from the Class of 1951, $3,200,885 from 1961, and over $10 million from 1956. These gifts put us well on the way to a successful campaign—a campaign that will keep our institution world-class and accessible to the best and brightest students.

In September we celebrated Homecoming 2011. Alumni and their families flocked to campus to enjoy the barbecues on the Quad, tours of WPI's new Sports and Recreation Center, the traditional Parade of Floats and Rope Pull, and of course, the football game. The Classes of 1986, 1991, 1996, 2001, 2006, and 2011 also celebrated their reunions.

During Homecoming the Alumni Association honored our own with the Robert H. Goddard Award for Outstanding Professional Achievement and the John Boynton Young Alumni Award for Service to WPI. Recipients were James Baum '86, Gerald Burns Jr. '91, James Gannoe '91, Megan Wallent '91, Laura Amodeo '06, Melissa (Lichwan) Besse '91, Keith Barrett '96, and Kathleen (Daly) Pereira '96.

The William R. Grogan Award for support of the WPI mission was presented to Jim Fee '65. You may know that our dear friend Jim died within the year. His widow, Joan, and family accepted on his behalf from Pat Moran '65, Jim's fraternity brother. Jim worked tirelessly on behalf of WPI, creating what has become a vibrant network of innovators and entrepreneurs. We were very pleased to have Jim's family join his WPI family to share in this recognition.

The WPI Alumni Association Goat's Head Award for Lifetime Commitment to WPI was presented to Father Pete Scanlon, longtime WPI chaplain. Father Scanlon joins Bill Trask as recipient of this prestigious award.

The awards ceremony was held in conjunction with the second annual Alumni Association Online Auction. This year, the auction raised approximately $9,000 to benefit student scholarships. My thanks to the alumni who served on the auction committee, those who donated items, and those who participated in the bidding to make this year's auction another success.

If you didn't make it to Homecoming, I hope you will save the date for Alumni & Reunion Weekend 2012, May 31–June 3. To learn more about other WPI events throughout the year, and how you can stay connected to our alma mater, visit www.wpi.edu/alumni. I look forward to seeing you on the Hill.

All the best,

Bob '65

Bob Cahill '65

WPI GORDON LIBRARY PRESENTS

ARCHIVES & SPECIAL COLLECTIONS

Remembering past innovators and preserving their legacies

The Morgan Construction Company of Worcester, now part of Siemens VAI, was responsible for some of the great innovations in the rolling mill industry, beginning in the 1880s. The impact of this company and its employees is found around the world.

The Morgan family, which has had close ties to WPI since the school's beginning, donated the company's archives to WPI in 2009.

Morgan Construction Company:

Revolutionizing the Rolling Mill Industry Worldwide

Now through June 6, 2012

in the Gladwin Gallery on the Ground Floor

Exhibit Highlights:

- Models of mills and machinery
- Historic photographs
- Patents
- Drawings of early Morgan mills

For hours and details about exhibits and events happening at the Library, visit wpi.edu/+library.

For archives information, email archives@wpi.edu or call 508-831-6112.

HOMECOMING 2011

Tech Connects

Creating meaningful and lasting connections is at the heart of the WPI experience. It was also the theme for this year's Homecoming festivities, which took place Sept. 23 and 24 on the WPI campus. Hundreds of alumni returned to campus to enjoy a fall weekend of fun, competition, and friends. Alumni in attendance enjoyed watching the Parade of Floats, the annual Rope Pull, fraternity and sorority open houses, and of course, the Homecoming Game, which was won by the Engineers 34-31 before a packed house at Alumni Field. The Classes of 1986, 1991, 1996, 2001, 2006, and 2011 also gathered on campus that weekend to celebrate their class reunions.

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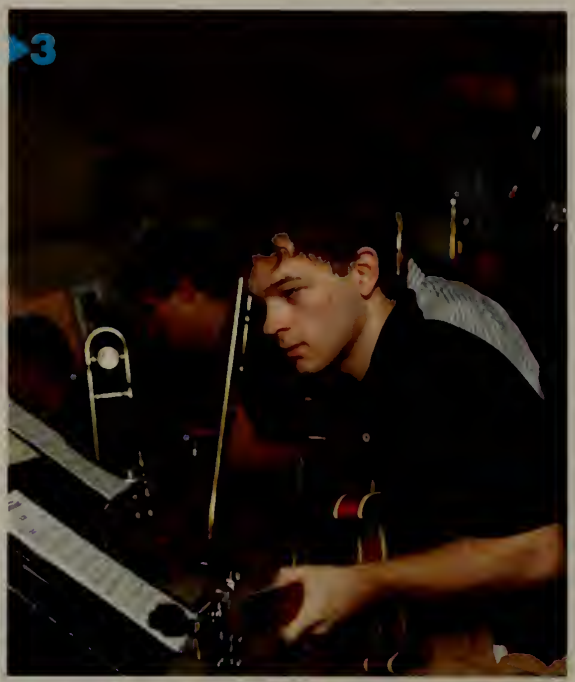
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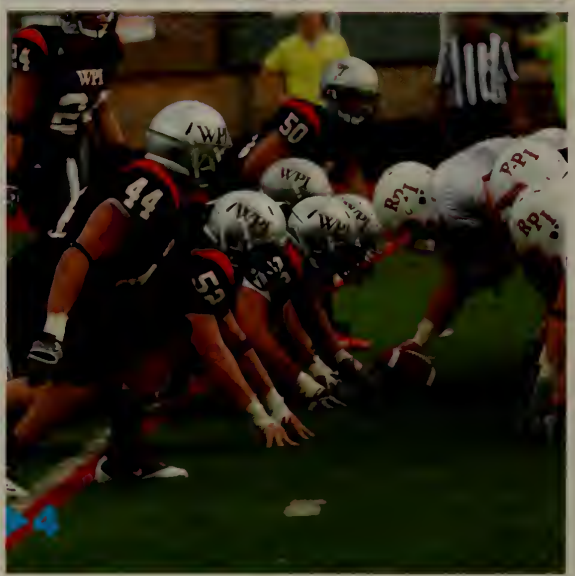
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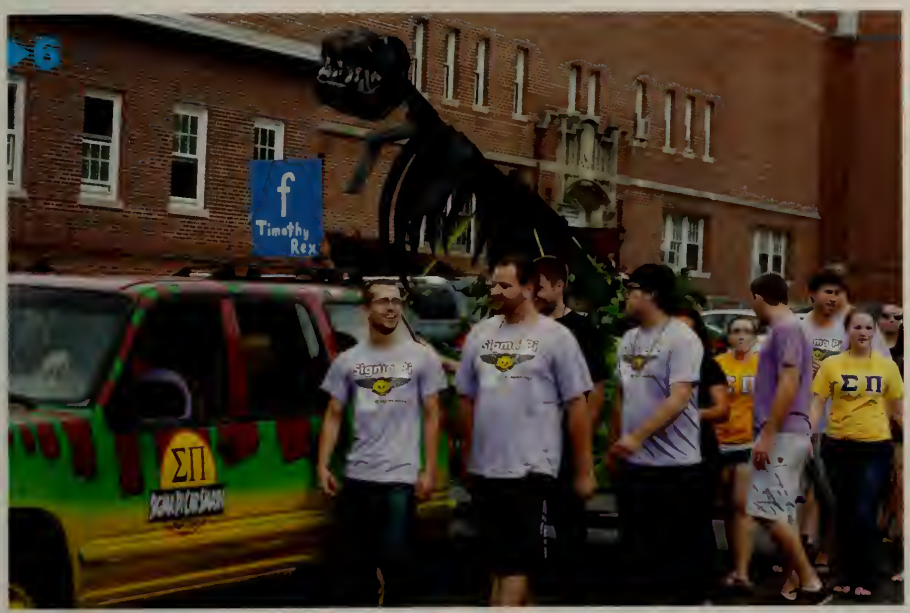


1. Three cheers for Gompei!
2. Students and alumni pose with WPI's beloved mascot.
3. WPI musicians entertain students, alumni, and friends on the Quad.
4. WPI beat RPI 34-31—Go Tech!
5. Graduates of the Last Decade Reception: (back row, from left) Matthew Silva Sa '09, Jon Baldiga '09, and Dericc Orso '09; (front row, from left) Liz Carey '09 and Sabrina Zayas '09
6. Sigma Pi's creation for the Parade of Floats
7. Friday night's Pep Rally
8. Enjoying the Graduates of the Last Decade Reception: Ben Landry '10, Amanda Moreno '10, Jen Maurer '10, Matt Runkle '11, Jason Codding '10, and Greg Richmond '11.
9. The WPI Marching Band performing at halftime.
10. Alpha Gamma Delta in the Parade of Floats
11. Family fun at the 1991 and 1986 Class Reunions.
12. Tom Hopper '64 (left), Moe Silvestris '64, and Bob Cahill '65, WPI Alumni Association president, join the Parade of Floats.

On Behalf of Students

Two Alumni Provide $15.6 Million in Scholarship Support

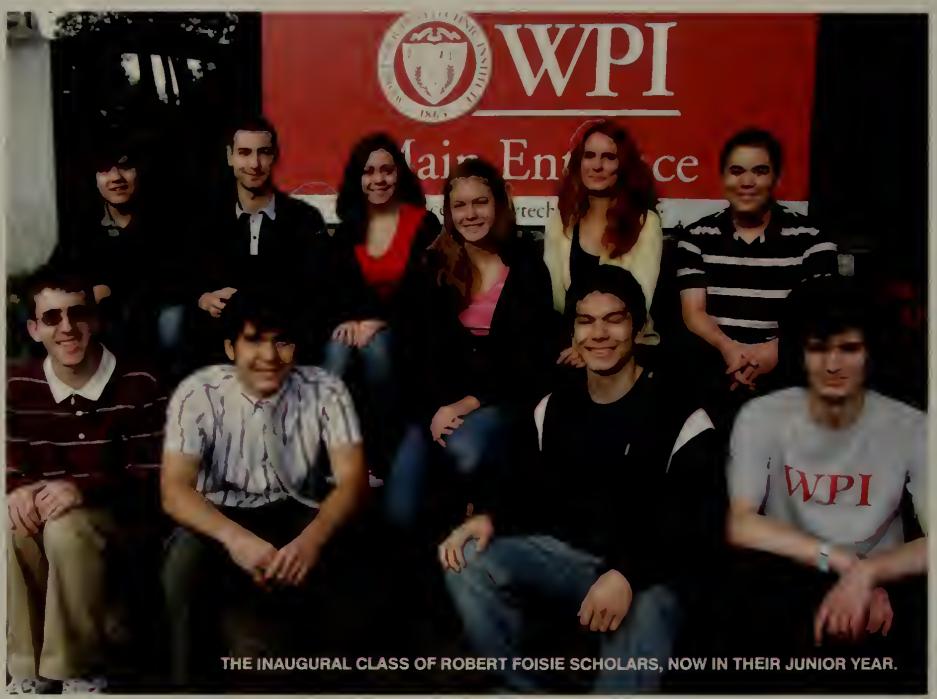
IN A REMARKABLE demonstration of loyalty and dedication, two WPI alumni have recently made generous gifts that will enhance the university's ability to attract and retain the best and brightest students. Robert A. Foisie '56 gave $9.4 million to support the Robert Foisie Scholars Fund for undergraduate students, which he established in 2009.

Foisie's announcement came just after George Messenger Jr. '51 and his wife, Priscilla, announced that WPI will receive more than $6 million from their estate, funds that will also be used to support undergraduate scholarships through the George and Priscilla Messenger Scholarship Fund.

"Through these generous gifts—two of the largest in WPI history—Bob Foisie and the Messengers have greatly expanded our capacity to offer scholarship support to bright, talented, and ambitious students who are best suited to WPI's culture of high achievement," says President Dennis Berkey. "They have also provided our community with tremendous momentum for our fundraising initiatives, of which scholarship support is a key priority. We are grateful to Bob Foisie, and to George and Priscilla Messenger, for their dedication and generosity to WPI."

The Foisie and Messenger scholarship gifts come at a critical time, says Stephen E. Rubin '74, chair of the WPI Board of Trustees. "Many of our students face financial challenges due to the current economy and the daunting cost of higher education," says Rubin. "Bob Foisie and the Messengers have chosen to help these deserving young students through endowment, which means these scholarships will be available to WPI students for generations to come."

To date, WPI's scholarship endowment totals $102.8 million, which amounts to 374 separately named funds that generated more than $5.4 million in scholarship aid during the 2010-11 academic year. This is in addition to the $42 million that WPI spent last year on financial aid from its own operating funds.



THE INAUGURAL CLASS OF ROBERT FOISIE SCHOLARS, NOW IN THEIR JUNIOR YEAR.

"Endowed scholarships play a vital role in keeping WPI's doors open to these high achieving students," says Kristin Tichenor, senior vice president for enrollment and institutional strategy. "Nearly 90 percent of our students qualify for some form of financial aid, so the need is great. Mr. Foisie and the Messengers are ensuring that more of our students have the opportunity to make the most of their WPI education. And I believe their actions will inspire other alumni to follow suit and invest in future generations of WPI students."

Foisie Scholars

A trustee emeritus of the university, Foisie has a long and generous history of philanthropy at WPI, with a particular focus on undergraduate scholarships. Prior to establishing the Robert Foisie Scholars Fund, he had established 17 other undergraduate scholarships, named in honor of various WPI professors who influenced his life. Since 2009, the Foisie Fund has provided scholarships for up to 10 incoming undergraduate students each year, chosen from the top students of the class. Each Foisie Scholar receives a four-year, full-tuition scholarship and a one-time allowance to be used for a WPI Global Studies experience. WPI currently has 23 Foisie Scholars—10 entering their junior year, five entering their sophomore year, and eight first-year students.

According to Foisie, who received scholarships as a WPI student, there were several faculty members who made a lasting impression on him. "Those fond memories have fueled my dream of establishing a scholarship fund to support qualified students with financial need and a burning ambition to make a difference in the world."

Foisie received a mechanical engineering degree from WPI and a master's degree from Cornell University in 1958. As a young engineer, he found a way to simplify the design of a fuel control valve for jet aircraft, which led to a patent. Among his many credits, Foisie is founder and former president of Matik North America, Inc. in West Hartford, Conn., a firm specializing in paper-processing machinery. He also owned a Swiss company that makes carton and packaging machinery. Foisie began his career as an engineer at Hamilton Standard Co., and later served as chief production engineer at Pratt & Whitney in Hartford. His current business interests span from telecommunications to real estate.

PRESIDENT BERKEY (CENTER) WITH THE MESSENGERS

The Messenger Scholarship Fund

Scholarship support has long been a priority for George and Priscilla Messenger, as well. A child of the Great Depression, George Messenger experienced firsthand the financial burden of a college education, while Priscilla comes from a long line of educators, and so understands the critical role that education plays in individual achievement. With these values in mind, they established the George and Priscilla Messenger Endowed Scholarship Fund in 2001. Their latest gift, made through a bequest, will be added to this fund.

"I firmly believe that students should not be burdened with a heavy debt load when they graduate from college," says George Messenger. "WPI provided me with a scholarship that—combined with outside jobs—enabled me to complete my studies. I was 16 when I entered WPI and I graduated with a degree in physics. WPI provided me with the solid education that made my successful career possible."

Messenger went on to earn a master's degree in electrical engineering from the University of Pennsylvania and a PhD in engineering from California Coast University. He has had a significant impact on technologies that allow satellites to work successfully in space. His discoveries include the Messenger-Spratt Equation, which describes the effects of neutron radiation on bipolar devices, and the Kirk Effect—also called current-induced base push-out—an apparent increase in the width of bipolar transistors that occurs at very high injection levels and current densities. Messenger's discoveries showed how electronics could be hardened against the effects of radiation. The work resulted in several patents and more than 50 refereed technical papers.

Messenger also contributed to the development of the EKG and the hardening of circuits for the atomic clock in the Global Positioning Satellite. He conducted research at the Naval Research Laboratory on a proton radiator for fighting cancer that localized radiation damage to the area of the body being treated. This earned him the Alan Berman Research Publication Award from the Naval Research Laboratory. He also received the Annual Merit Award from the Institute of Electrical and Electronics Engineers (IEEE) Nuclear and Plasma Sciences Society, the Peter Haas Award for outstanding technical contributions to hardened military and space systems, and election as a life fellow in IEEE for his contributions to the determination of radiation to semiconductors and advances in semiconductor technology. He is the co-author, with Milton Ash, of *The Effects of Radiation on Electronic Systems*—considered the definitive work in the field—and *Single Event Phenomena*. In recognition of his pioneering work on the hardening of electronic systems, Messenger received an honorary doctor of engineering degree from WPI in 2009. Just recently, both Messengers were awarded honorary doctorates by Hillsdale College, George in science and Priscilla in business.

classnotes

▶1 **John Lancaster '39** writes, "I retired from the National Radio Astronomy Observatory as assistant director in 1981 to live aboard our ketch *VITA* for 12 years in the Caribbean Sea. Back to Socorro, N.M., in 1993 and then in 2001 to a CCRC in Setauket, N.Y., so that we could be nearer our five daughters. Phyllis, the 1939 WPI Class Bride, died in 2004 after a six-year battle with cancer, and in 2006 I married a gal named Gloria. We live in a very nice four-level life-care community named Jefferson's Ferry with 300 other folks. Would love to hear from other retirees. E-mail is lancasteja@aol.com."

George Bingham '40 writes that he's been very active as a member of a worldwide group of "global warming realists." He lives in Portland, Ore.

Ted Pierson '43 writes, "I live in a continuing care residential community near Princeton, N.J., with lots of activities to keep me busy. I still drive, but have given up golf. Many close friends have passed away, and I wonder who is left from the Class of '43. I have followed with pride the scholastic advances of WPI over the years."

Erl Lagerholm '44 writes from Carmel, Calif., with praise for the Spring 2011 issue of *Transformations*. "I think it was, by far, the finest issue that was ever produced. Keep up the good work!"

Ernie Kretzmer '45 says he's "living the proverbial charmed life...we built our self-designed dream house, which has proved very livable—low in maintenance and very green, especially considering we moved in 22 years ago. Heating and cooling is geothermal, all windows and doors have dual glass panes, and almost all lighting inside and out is compact fluorescent."

▶2 **Frank Holby '48** writes, "I have been studying French for almost three years. I have also assumed the nearly full-time job of caregiver for my wife of 62 years who has dementia. I stay healthy by daily exercise. At 86, it's necessary to exercise both the body and the mind to remain fit for such an important job as caring for a wife who has given me four fine children, who in turn gave us 15 grandchildren. My legacy has been established through this family, of whom I could not be more proud."

Dan Sheingold '48 is still working at Analog Devices as editor of *Analog Dialogue* [in its 45th year of continuous publication—his 43rd]. He's a volunteer reader at Learning Ally, formerly Recording for Blind & Dyslexic. He lives in Waban, Mass., and can be reached at danshein@ix.netcom.com.

Pres Stevens '48 and his wife, Mary, made their first trip to Iran in 36 years, where they visited Mary's family, and toured the buildings and gardens of Shiraz, Yazd, and Isfahan. He was impressed by the magnificent layout and the decorations of Takht-e-Jamshid (Persepolis), the pre-Islamic (Zoroastrian) decorations in Yazd, the intricate and heavenly mosaic designs of the façades in the Chahar Bagh of Isfahan. "We enjoyed a delicious lunch of Shirazi salad and carrot and rice pulo served to us by our tour guide's mother and sister in their village home, as we sat cross-legged around an embroidered cloth on the carpeted floor. It was a wonderful experience!"

Lee Bassett '51 recaps his year: "I turned 81 in December and celebrated with a high PSA reading. Responded with a biopsy in January. Analysis indicated hormone shot for February. Decided to move in March. Big garage sale in April. Completed move in May. Prostate radiation treatments in June. Five days per week thru July. Check-up OK in August. Wife's birthday in September. Another check-up in October. Daughter's birthday in November. I turn 82 in December."

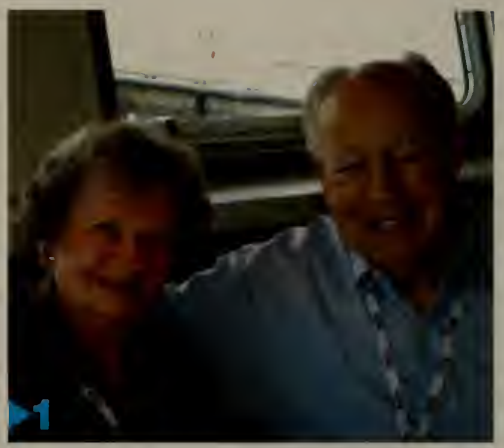
Dick Coffey '51 reports that his town of Wilbraham, Mass., was hit by its first tornado on June 1. "Happily, it missed our area. On July 26 we were hit again by a microburst that knocked down several trees. No one was hurt, but we have become very attentive to weather reports involving thunderstorms."

Harvey Howell '51 says he has slowed down quite a bit this last year due health problems but managed to get in some glider flights, including "two hours in my own ship," which he keeps in Vermont. He still lives in Dover, Mass., with Debbie, his wife of 60 years.

Robert Zimmerer '51 recalls his excitement about working in the Washburn Shops, where his hero, Robert H. Goddard, started his experiments. "Before I had graduated, his widow was invited to give a talk. I discovered he had been a member of my fraternity! Like Goddard, I, too, earned a PhD in physics. Few of my classmates still live to reminisce with me."

Ann and **Monroe Dickinson '52** say, "We escaped from summer heat with a cruise on the Baltic Sea. Embarking from Stockholm, we traveled to Tallinn, Estonia, and to St. Petersburg, Helsinki, and Copenhagen. For the past two years we have been residents of a continuing care retirement community located in Rockville, Md., with easy Metro access to Washington. Neither of us misses house maintenance, cooking, and chores, and both of us enjoy the programs and activities at the facility."

George Sanderson '52 writes, "We've just entertained a party of three from Kent, England, plus our daughter and grandchildren in an overlapping week. I'm trying to sign up for an online course on artificial intelligence from Stanford University. My motto? When you stop learning, you start dying."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David Hathaway '53 shares that he just returned from a 1,600-mile bike trip to the annual BMW rally in Bloomsburg, Pa. "This 80-year-old borrowed my daughter's tent and slept on the ground. Retirement is wonderful as long as you have several hobbies, spend some time volunteering, and have enough children that you can relive your life through them."

Phil Simon '53 writes, "I am proud of my graduation position, which allowed me further and free education and wonderful professional positions in my field. I am 80 and still vibrant in my profession, retired twice, and still running my own private company."

Neil Gleberman '54 and his wife, Donna, celebrated their 50th wedding anniversary in April with a year of travel. "We've been to French Polynesia, taken a Seine River cruise from Normandy to Paris, and will venture to India and Nepal later in the fall. We are proud grandparents of six (soon to be seven!) grandchildren. Retired life in Virginia has been wonderful for us, and we enjoy golfing, hiking, our Brittany, and traveling. We have visited more than 75 countries so far!"

Milton Meckler '54 notes that he resides in The Huntington Townhomes, built in 1998, not the historic Huntington Hotel [as was erroneously stated in the previous issue], which was demolished after falling into disrepair. A member of the St. Petersburg, Fla., Preservation Society, Milton designed the commemorative bronze plaque for the community's gated entrance, in tribute to the historic hotel.

Bill Taylor '55 published two e-books of fables, *Bribern Beaver Logs On*, and *Bribern Beaver Gives a Dam*. "Not exactly the traditional format for scientific publications," Bill says. He says a Kindle edition is also available.

Dave Gilda '56 writes, "My wife, Justine, and I have had 53 very happy years together and raised a wonderful family. Jobs have taken us from the East to the Midwest and back again. I worked for GE, Black & Decker, and finally a consulting job for the Builders Hardware Manufacturers Association that involved working with CEOs, chief engineers, and building code associations. In 2001 we moved to Allentown, Pa., and are very lucky to have our children nearby."

Dick McBride '56 says he's "enjoying life, splitting time between Maryland and the California desert, volunteering, playing lots of tennis, and enjoying our 13 grandchildren."

Dick Rotelli '56 writes, "After I retired in 1994, we did a lot of traveling. I also got back to playing the piano and composed a few tunes. Although everybody knows engineers can't write (except for current WPI grads!), I did publish two biographies, which have done well and have received nice reviews. My website, rlrotellibooks.com, has a slideshow for each, with my original music. Our sons Richard Jr. and Michael are WPI grads. Michael married his WPI sweetheart."

Dick Barlow '57 writes, "Afra and I have joined the flock of snowbirds on the Pennsylvania-Florida route, and spend half the year in each place. We have three kids, and six grandkids. We will celebrate our 50th anniversary next year, God willing, with a trip to Afra's hometown in Bavaria, and three weeks hiking in the Bavarian and Swiss Alps. I keep busy with photography, and Afra is a black-belt duplicate bridge player—but she won't tell me where she keeps the gold points! We see Carole and **John Hoban '57** occasionally, but not much contact with other WPI friends since our 50th. Hope to make it to the 55th!"

Herbert Hemenway '57 writes, "I spent 40 professional years developing a mechanical transmission called Harmonic Drive that has application for robotic joints and aerospace hardware. Virtually every satellite that is flying uses one or more Harmonic transmissions, including the Space Shuttle and the Hubble telescope. We developed an actuator for the Saturn missile to control the flow of liquid oxygen and hydrogen. We also developed the wheel drives for the lunar rover. There are a total of eight Harmonic Drive transmissions parked on the moon for eternity! When I took the aerospace option my senior year at WPI, I did not expect to get into space hardware development. I spent the last 15 years as engineering manager of Harmonic Drive Technologies.

Al Papianou '57 wrote a memoir of his life as an "indentured servant" working at his uncle's Greek restaurant in Woonsocket, R.I., before he came to WPI. "It's called *Tolia*'s. I had it printed at a local company and have given away about 150 copies. I sent one to President Berkey, just to prove that engineers can write. I also donated about 50 copies to various organizations, which have sold them and kept the profits. To all of my fellow alumni: Do it! Your children and relatives will appreciate the insights into your life."

Spike Vrusho '57 lives in Vero Beach, Fla . with his wife of 26 years, Marion. He is active in fundraising efforts for the Homeless Family Center and for his Unitarian Universalist Fellowship. "A guest room with two beds and a private bath await classmates who wish to visit this lovely community," he writes.

Solon Economou '58 says, "I've knocked another item off my Bucket List: flying in a World War II B-17. Next up, the P-51?"

Howard Pritz '58 says he been retired 10 years from his work "developing a complete family of anthropomorphic test devices, otherwise known as automotive crash test dummies." He also says, "Retired life is good. I have been married to my high school sweetheart for 52 years, and we have three children and five grandchildren. We are active in our church, where we both sing in the choir. I am also an election official. My wife works part-time as an education consultant. We attend lots of plays and concerts and we enjoy traveling. Life is full!"

Sherman Poultney '58 writes, "Like everyone else my age, we are downsizing and planning a move. Ours is from Wilton, Conn., to North Carolina."

Bill Rabinovitch '58 received more than 200,000 "Likes" on Facebook for his posts about Steve Jobs—before Jobs's death in October. In a TechCrunch post last summer, he recalled the opening of Apple's flagship store and theatre in New York's SoHo district in 2002. "I had a unique opportunity to videotape the opening, including the celebrities and computer cognoscenti that showed up from around the world for the champagne reception. Steve, in the pink of health, was as charming as could be, interacting with great warmth with a variety of invitees. I was able to catch much of the ambiance and flavor of the event in my video. Even then, I was already convinced Apple was the ongoing future. The deeper story is always key for me, and I was super aware of it that evening." Bill is now working on a historical film about the SoHo art scene, incorporating his firsthand experiences as an insider from the 1960s to the present.

▶3 **Jim Alfieri '59** represented the North Bay Italian Cultural foundation at the Oakland A's first-ever Italian Heritage Night. "Guess who got to throw (roll) out the first pitch? Italian style, of course—it was a bocce ball!"

Mohammad Amin '59 is retired from Sargent and Lundy Engineers in Chicago, but continues as a consultant with them.

Nancy and **Dave Dickert '59** say, "We have friends who kindly invited us to cruise with them in the straits of Georgia and Howe off Vancouver, B.C., for a few days. We haven't been on a boat of that size in years so we jumped at the chance and had a great time. The electronics were amazing. Set the course via GPS and the auto-pilot does the rest. Great place, great seafood, great trip, much fun with good friends."

▶4 **Roger Kuenzel '59** is a performer in the Irem Temple String Band and also sells toys for the benefit of children at Shrine Circuses in Kingston, Pa.

Pat and **Frank (Skip) Pakulski '59** say, "We had an exciting month-long trip, starting in Sydney, Australia. Snorkeled the Great Barrier Reef, visited Darwin, then on to Bali, Hong Kong, Taiwan, Shanghai, Nagasaki, Dalian, and finally, Beijing. Met some wonderful friends from all over the world."

Geza Ziegler '59 writes, "I successfully retired, though very busy. (More than when I was employed!) Besides hobbies, such as motorcycling, I am involved in church activities. I recently broke my right hip and had it replaced. (Parts were NOT from China!) Just starting to walk without a cane. Otherwise all is well!"

Richard Brewster '60 says, "Just back from Gambia after six weeks on a medical team repairing cleft lips, palates, and facial deformities. I was the photographer for the Smile Train/Mercy Ships mission, in charge of before-and-after shots."

Bill Hester '60 was featured in a special commemorative issue of the *Monmouth Message*, honoring the service of Fort Monmouth's soldiers, civilians, and family members. He served in the Signal Research and Development Labs as a 2nd lieutenant, directing a team dedicated to solving heat transfer problems caused by solar interference in satellite radio communications systems. Hester's team developed an innovative coating for parabolic dishes that enables the worldwide satellite communications of today and is used commercially on rooftop TV dishes. The base was closed in September.

Ed Sappet '60 says, "This alumnus is still in gear. Recently sold my condo and bought a house in Florida. Good time to buy as prices have fallen low."

Stephen Brody '61 continues as an applications engineer for Anver Corp. in Hudson, Mass. The company specializes in industrial vacuum material handling applications.

Ted Cocca '61 retired from the U.S. Department of Defense after 45 years in weapon systems. He says he's enjoying water skiing, snow skiing, golf, and no alarm clocks.

Asjed Jalil '61 retired from Morgan Co., though he continues to serve the company as an ambassador, based in the Worcester area and traveling to nurture relationships with companies in South Asia. A recent article in the *Morgan Journal* chronicled his career, from India to WPI to the formation of Morgan India, where he remains on the board of directors.

Tom Pantages '61 writes, "Hi 'mates! Renovating family home, taking all too long; plumber/carpenter/electrician hopefully coming soon. Hope to get active in photography again in 2012. I've been involved with international folk dancing for over a decade now."

Harvey Slovin '61 writes, "Our son Jeffrey graduated from WPI in 1996 with an MS CS. After many years in the private sector and the federal government, I'm enjoying retirement, as well as volunteer work. My wife, Loretta, and I enjoy traveling around the world and exhibiting our pictures at our photo club's competitions."

George Yule '61 and his wife, Ingrid, traveled to the Holy Land. "It was an unforgettable trip, shared with a great group of people from a church in Palo Alto, Calif."

Jesse Erlich '62 is a partner and member of the Intellectual Property/SciTech, Government Contracts, and Science & Technology Groups of Burns & Levinson LLP of Boston.

Casimir Matonis '62 says he spent a fantastic week in June camping near Lake Powell, Ariz., and hiking various trails, including four slot canyons: Lower Antelope, Secret Canyon, The Passage, and Corkscrew Canyon.

Tony Allegrezza '63 writes, "I am enjoying retirement immensely after 35 years in the membrane industry. I still do a little consulting and patent writing, but not enough to interfere with racquetball, biking, and drinking coffee with friends. This spring I went on a two-week bike trip through the Andalusia region of Spain, and discovered that Spain is the second most mountainous country in Europe. It was a great but strenuous adventure. Judy will retire from teaching soon and we plan to do some heavy-duty traveling. Best wishes to all in the Class of '63."

Dick Epstein '63 says, "I recently retired from Mayfran International. Since then I have volunteered for SCORE, helping small business start-ups in the Greater Cleveland Area. I am also mentoring the local high school's robotics teams. Both of our children have moved back to Cleveland. We now have four young grandchildren within 10 minutes of our home."

Russ Hokanson '63 is enjoying retirement in Wilmington, Del., with his wife, Barbara. He has two daughters, two grandchildren, and three great-grandchildren.

Robert Murphy '63 writes, "I plan to watch the launch of the NPP satellite from Vandenberg AFB on October 25. I started this mission back in 1997 and served as its chief scientist until 2004, when I retired from NASA. I have continued to be involved in the mission, first as an adjunct professor at George Mason University and now as a private consultant. I also teach astronomy at a nearby college. I will be watching the launch with Nancy, my wife of 46 years. Time flies! (Let's hope that NPP does, too!)"

Bob White '64 writes to share this wonderful tale: "Sometime around the summer of 1983, I was vacationing with family at a small pond in western Maine. The camp was rustic, with no indoor facilities, so it was our custom to bathe in the pond. While washing my hair one day, I lost my WPI class ring in the water. Never could find it, even with a metal detector. But this past summer the WPI Alumni Office contacted me and put me in touch with a Maine woman whose son had found the ring—some 15 years ago! With the help of our WPI Alumni Office, the ring is now back on my finger. Pretty amazing, I think."

Tom Zagryn '64 writes, "Gone fishin'! Love it here in Litchfield County, Conn. Sadly, my wife, Donna, passed away in 2009, so it's just me and my "girls" now—Buttons and Bows, my two Maltese ladies. Also have two sons, making me a proud dad. I am active in my Elks Lodge and enjoy family, neighbors, friends, and the Red Sox. Still play guitar, but don't have the chops from my days of playing with our Blue Echoes band in Worcester (1962–66). Would love to hear from any Class of '64 grads who remember me when I had hair—but don't send chain emails. Be well, all."

Frank Benham '65 and his wife, Paula, are now retired and living in Palm Coast, Fla. "We are both very active in volunteer-

ing for the local community. We've also taken up serious croquet. (Not your backyard kind. We have rules, strategy, and lots of fun). Life is now seven Saturdays a week!"

Charlie Dufour '65 writes, "Each January, for the past five years, we have been taking a team to Mali, Africa. We hold a medical clinic and have been working on building an orphanage and school. So far, we have helped start five Christian churches and treated several thousand people for conditions such as malaria, wounds, burns, eye problems, typhoid, etc. It has been very rewarding."

Mort Gutman '65 writes, "After graduation, I went to USAF Officer Training School. I spent the next two years in navigator school, bombardier school, survival school, and B-52 school before being assigned to Plattsburgh AFB as a navigator. I flew 65 bombing missions and managed to survive unscathed. Later, I picked up an MBA from the University of Detroit. I also became a volunteer firefighter, and stayed for 23 years, being named Firefighter of the Year in 1996. (Yeah, I was one of the crazies who ran into—versus out of—burning buildings.) Went on to get my paramedic license through UConn Medical School and worked as an EMT, then a paramedic for many years. I finally had to quit due to progressively degrading knees. For the past nine years I've been working as a public safety dispatcher for our town. I got back into flying several years ago, which does wonderful things for my sanity. I've been married to the same beautiful woman for 43 years now. We have two children. Our son, who is autistic, lives in a group home not too far away and where he is very happy, which makes me happy. Our daughter is an emergency room physician in a small hospital near Cape Cod."

Pete McCormick '65 is enjoying his third year in retirement. "Made a cross-country train trip in July with a stop at Glacier National Park and toured Oregon, Washington, and Vancouver Island."

Michael Oliver '65 writes, "Since I retired in 2001, Pat and I spend our winters in Hilton Head, S.C. We've traveled twice to Italy, and really enjoyed the people, the food, and the sights. We also took our family to Jamaica to celebrate our 45th wedding anniversary. Everyone had a wonderful time, especially our two grandsons. Most important, we remain in very good health, active in sports. Retired life has treated me well—thanks to my education from WPI."

Philip Blackman '66 writes: "Just completed two weeks of exploring Vancouver and Anchorage."

John Gilbert '66 writes, "We were supposed to cruise up the East Coast of Japan, but, as they say, 'life happens'—in the form of the recent tsunami. We were re-routed to Korea and Russia. I got to see two areas that I knew from my Air Force days, when it was the Soviet Union and I was part of the mission monitoring their Air Force activities. It was very interesting to visit museums and see the machinery that I had tracked some 50 years earlier on display."

Bill Nims '66 writes, "In early August, I went to Orlando to visit my new grandson (Brody), who was born on my birthday, and to celebrate my mother's 96th birthday."

Don Nitsche '66 writes, "After a career as a pension actuary, I retired from Mass Mutual in 2009. Nancy and I have been married for 41 years, having met in my junior year at Tech. Our kids live in Boston and Las Vegas, and we enjoy visiting them."

Steve Alpert '67 recently celebrated 30 years with GE Healthcare. He is a principal engineer in Boston and lives in Auburn, Mass. He has three grandchildren.

▶5 **Bill Hyatt '67** writes, "With a few members of my church, I joined a winter snowshoe expedition in the White River National Forest. We spent one night at one of the famed 10th Mountain Division Huts at 11,000 feet above sea level, with no electricity or running water. Our water supply was (non-yellow) snow that we melted in pots. We backpacked all food supplies, propane stove, sleeping gear, and decks of cards. KP duties were assigned to those who lost the card games. I forgot the milk and butter for the French toast breakfast, but it was the one of the most satisfying breakfasts I ever had! This adventure had special meaning for the Greenwood Congregation, because our 93-year-old patriarch and past-pastor, Les Whittemore, was in the 10th Mountain Division during World War II. In the photo, the guy in the front left corner is yours truly; to my immediate left is Alice Hyatt."

Bruce Denson '68 recently accepted the position of pastor of First United Methodist Church in Southbridge, Mass.

Bob Anderson '68 writes to say he's been working in Beaumont, Texas, for 30 years. "My wife, Beth, and I built a house on five acres in the woods. No plans to retire yet. We make it back to Worcester occasionally. I am always amazed at how much WPI has grown since my previous visit."

John Gahagan '68 says that retirement agrees with him: "I retired from teaching nine years ago. Since then, my wife and I have been to a wedding in the south of England, a wedding in the south of France, and to Jordan, where I was part of a team teaching Jordanian teachers about computers. We also went to Wales, Mexico, and Eastern Europe—plus, two great trips to Beijing. If we knew retirement was going to be so much fun, we'd have done it sooner."

Ken Gminski '68 writes, "Our daughter, Sarah Beth, presented us with a grandson, Colin Joseph Nassif, 15 months ago. My wife, Ruthanne, took a leave of absence to watch him. That means I get to see him a lot! Life is good. I feel blessed. I see **Arnie Antak '68**, our fearless leader, at his summer lake house in New Hampshire, and **Brian Belanger '66** when we vacation in Arizona. Brian recently became a grandfather, too. I got my Medicare card back in May—I always thought 65 was old—now I see it as merely upper middle age, as I expect to live to 100."

Ronald Jodoin '68 says, "I just retired after 37 years as a professor of physics at Rochester Institute of Technology. Along the way I received RIT's Eisenhart Award for Outstanding Teaching, served as associate dean of the College of Science, and consulted for Xerox Corporation, where I earned 13 U.S. patents. Martha, my wife of 43 years, and I have a son and a daughter, are the proud grandparents of three boys and two girls, and are looking forward to traveling and relaxing."

Gerry Blodgett '69 writes, "I recently had my cancerous prostate removed by a robot. Prostate removal used to be a very intrusive procedure, with a lengthy recovery. But in my case, a robot poked some small holes and I was back at work in three days. I have always been in awe of the miracles that technology provides us, but this little adventure brought it into focus. My thanks to all you engineers and technologists."

Peter Heins '69 writes, "My wife, Robin, and I have been enjoying retirement. I am in frequent contact with **John Gavitt '69** and correspond with **Ken McGuire '69** about once a year. I continue to be active with ham radio after 40 years and for the past decade have had major responsibilities with staging a major amateur radio communications exercise on the grounds of the Ronald Reagan Presidential Library and Museum in Simi Valley, Calif."

Eric Nickerson '69 says, "The Fiji class of '69 had their first reunion in 2008 and second in 2010. It was great to see old friends and hear how they are doing. I moved from Amherst to Milford, N.H., where I continue to work and enjoy my passion of flying a hot air balloon. I am a commercially rated pilot, licensed to fly paying passengers. I'm also starting to get back into blue water sailing, in case anyone needs a crew. Especially enjoying my children and grandchildren—a total of seven!"

Bob Anshutz '70 retired in July 2010. "After a year, I find it quite satisfying. I heartily recommend it. However, don't expect to have all that free time. I still find it hard to get everything done on my To Do list. But there's always tomorrow."

Raymond Danahy '70 (MS PH), '79 (PhD) is now retired in North Carolina after a varied career: "Seven years as a physics professor at Norwich University; eight years as an environmental scientist and manager of an environmental radioactivity lab manager; and 15 years at a Department of Energy nuclear weapons cleanup project as a radiochemistry lab manager, environmental scientist, and waste disposal engineer."

Paul Himottu '70 is beginning his eighth year of teaching high school math at Worcester Academy. His daughter, **Jennifer Himottu '09**, will be marrying **Keith Flanders '09** this fall.

Dave Ploss '70 writes, "I'm retired in Hendersonville, N.C., playing golf and coaching the Asheville Rowing Club. Once again working with a younger rower trying to make the U.S. Team."

▶6 **Bob Soffel '70** writes, "Like some of my classmates, I followed the corporate nomad path after serving three years in the U.S. Army. First Cleveland, and then to Connecticut, Pittsburgh, Houston, and finally settled for good just north of Philadelphia. Smartest and happiest decision I ever made was marrying my second wife, Josephine, in 1985. We visited Egypt last year and spent some time on the Nile. Still working...what pension? Have run a specialty adsorbent engineering and sales company for the past 15 years, and my son Andre joined the business a year ago."

Dwight Eddy '71 and his wife, Linda, celebrated their 40th wedding anniversary last year. Dwight achieved another milestone this year: his 15th anniversary working for Synopsys. "My passion is riding my GoldWing motorcycle," he says.

Paul Evans '71 writes, "I am enjoying my volunteer work at St. Michael's Cathedral in Springfield, Mass., where I was recently elected to a three-year term on the Parish Council."

John Szoke '71 writes: "I retired in 1999 after spending 20 years with Hewlett-Packard in the medical division. I am now an investor and a member of WPI's Alden Society. My wife is a professional artist and a juried member of the New Hampshire League of Craftsmen. We try to get to the campus as often as we can."

Steve Watson '71 reports that the annual **Bob Ferrari '74** Fiji cookout was a great success, with about 80 alums, wives, and guests, as well as four current WPI students on hand for the sweat-a-thon. "I thought I was the second oldest after **Greg Goulet '67**, but **Sherman Gates '72** corrected me, as he is two days older. This was the sixth annual get-together at Bobo's, and they only get better!"

After 24 years at Grace Construction Products, **Tom Weil '71** has joined the Mass DOT as a district bridge inspection engineer.

Ed Schull '72 is currently the vice president of regulatory affairs at GE Hitachi Nuclear Energy in Wilmington, N.C. He and his wife, Annie, recently celebrated their 25th anniversary.

Jim Tarpey '72 was named chair of the Rockland Community College Foundation's board of directors. He lives in Goshen, N.Y.

Dick Belmonte '73 writes, "I retired as deputy chief of staff of the U.S. Army Research, Development and Engineering Command in August 2010, after working for the Army for 37 years. I am now serving as the Grand Knight of the Bel Air, Md., Knights of Columbus Council and as a co-chair of the major gifts campaign for my parish's capital campaign. When not volunteering, I enjoy playing golf two or three times a week."

Garry Boynton '73 is retired and loving it. "Thirty-five years in the work force was enough. Career was great but you gotta KNOW when it is time to leave. Remember all the things you wanted to do as a kid? Well, so far I have backpacked New Mexico; gone scuba diving at St Croix, Grand Cayman, and Belize; and became a professional ski patroller (have to do something in the winter!). I continue to be heavily involved with the volunteer fire company, Boy Scouts, and National Ski Patrol."

Diane (Gramer) Drew '73 is currently manager of analytics at Hamilton Sundstrand in Windsor Locks, Conn. In May 2011, she received her master's in systems engineering from WPI.

Larry Dzaugis '73 writes, "Living outside St. Louis where I build BMW and Ferrari car radios. My wife and I are looking at where to move when this factory completes its move to Mexico. Prefer warm winters and green vistas for our next stop."

Mike Gipps '73 says, "My wife and I retired in San Francisco after 30+ years with Dow Chemical. Our two daughters are out of the nest, and we're having fun. I ref four high school sports (soccer, basketball, volleyball, and women's lacrosse). I've taken up fishing again and have enjoyed fly fishing in Montana, a float trip down the Salmon River in Idaho, and king salmon fishing in Alaska, where I recently caught a 35-lb. salmon. But I'm not goofing off completely. I volunteer by preparing tax returns for seniors and low-income people. We won't talk about my golf game, as it's still a work-in-progress."

Ken Lexier '73 and wife, Sue Ellen, live in Cornville, Maine. They have five grandchildren, with whom they spend as much time as possible. He is still with the law firm Wright & Mills, and she recently retired as a teacher. Ken will be climbing Mt. Katahdin again this year, with classmates **Mike Zack**, and **Josh Kolawole**

Ed Peczynski '73 writes, "I retired in 2010 after 37 years in the electric utility field, ending my career as director of information technology for Northeast Utilities. I'm now spending my time volunteering for a few organizations, traveling, playing lots of golf, and taking care of my new granddaughter."

Diane Pritchard '73 was elected Queen of Al Haram Temple No. 130, Daughters of the Nile, a sister organization devoted to helping the Shriners Hospital for Children. Now retired from a career as professor of computer science, she keeps busy with Dai's Creative Designs, a graphic arts company. She returns to WPI every Homecoming to present the Bob Pritchard Award.

Leonard Redon '73 was appointed deputy mayor of Rochester, N.Y., the city's first African American to serve in that role.

Richard Sliwoski '73, '80 (MS CE) is currently the director of the Department of General Services for the Commonwealth of Virginia, and has been elected president of the National Association of State Chief Administrators.

Thomas Burns '74 writes, "I have become a certified water quality monitor for Virginia Save Our Streams, a conservation program of the Izaak Walton League. The data collected helps local and state organizations identify potential sources of pollution in an effort to improve the overall quality of the watersheds throughout the state."

Robert Milk '74 is relocating to Phoenix, Ariz.

Dan Hartford '74 has been traveling the American West, from Route 66 to the scenic National Parks, to support his photography hobby, which "has progressed from taking pictures to making photographs." See danhartfordphoto.com. "At age 62 in the high tech field, the pickings are slim. If things don't turn around, I'll be de facto retired. Not the worst thing to happen. Started ourexperiencecounts.com, offering workshops, webinars, and other tools to help out-of-work Boomers and Gen-Xers."

Rick Takanen '74 retired after 35 years with GE. "First day of retirement was the start of a trip to Japan to visit one of our three sons. Since then, some consulting, but mostly traveling, relaxing, and working on the sports memorabilia collection. Kathy and I are planning a trip to Australia next year to celebrate our 30th anniversary."

Ed Gordon '74 came out of retirement to serve as an adjunct professor at Austin Community College in Texas, teaching computer security and networking tracks.

Wayne Bryant '74 says, "In my spare time I've been writing iPhone applications. Go to www.klrapps.com to see some of the apps I've created."

Mark Munson '74 writes, "My wife, Ellen, is awaiting a transplant of a kidney offered by her second cousin. After nearly seven years of her being on dialysis as a result of end-stage renal disease, we are both extremely grateful and humbled by the donor's initiation of this process; we feel we are in the presence of an angel. To say that this will be a life-changing event is understating its significance. We anticipate a good outcome, and look forward to the new quality of life this will enable for Ellen."

Mark Iampietro '75 is living in Pennsylvania and is vice president of quality systems and regulatory affairs for Unilife.

Robert Hart '75 retired in September 2011 after 36+ years working for the federal government. "After the house is in order," he writes, "I will try to find a new job, preferably part time, working here in New Jersey, or maybe a new career in another field!"

▶7 **Ed Griffin '75** writes that he just completed two years in the Peace Corps, working in Lesotho (southern Africa). "I taught at Moshoeshoe II High School and my wife, Carol, worked at the Matsieng HIV/AIDS Clinic. Grateful for the opportunity to serve. Our biggest challenge was language. Back to work at San Diego Gas & Electric soon."

Greg Miranda '75 is enjoying a break from work, traveling with his family, working on projects, and trying to get in shape for the upcoming ski season. "Senior year at WPI for the older son; younger son started freshman year at St. John's High School. Glad to see so many classmates at Homecoming this year!"

Norton Bonaparte '75 has been appointed city manager of Sanford, Fla.

Bob Simon '75 writes, "Enjoyed my weekend back on campus for the 100th Anniversary of Skull. The Class of '75 was well represented. Enjoyed friends, fraternity brothers, and Deans Grogan and Trask. Everybody looked great, as did the WPI campus. Starting my 20th year with Arizona Chemical. Family and work have kept Debbie and me busy. Two children, who are Notre Dame alumni, so many weekends will be centered around football."

Jeffrey Wnek '75, '85 (MBA) teaches physics at Weddington High School in Matthews, N.C., which was No. 322 on *Newsweek*'s recent list of the top 500 high schools. "I enjoy flying a couple times a month and getting my tired, old bones to the gym on a regular basis. I have four grandchildren with another on the way. Catch up with me on Facebook or visit my website, www.mrwnek.com."

Bob Fried '75 writes, "After 23 years with the same company, I decided to go into business for myself in 2005. I left Vishay in 2004 to start Midarome Electronics, which is essentially an international company of one person. I do a lot of traveling in the U.S. and abroad—I recently returned from my 53rd trip to Asia."

Harry Danberg '75 writes, "I'm still in Portland, working for the Oregon Air National Guard. Daughter Nicole is attending Oregon State. Son Zachary is a junior in high school."

Barry Braunstein '75 joined Camstar Systems, a supplier of MES (manufacturing execution systems), as a strategic account executive.

Bob Horner '75 is director of public policy for the Illuminating Engineering Society. "The job involves frequent trips to Washington to deal with legislative and regulatory issues that affect the lighting industry. The IES is based in New York City, but I work out of my home office in Groveland, Mass."

Peter and **Sandra (Reardon) DiPietro '76** commute to Manhattan together from their home in Ridgefield, Conn. Sandy works at Marsh, the world's largest insurance broker, in the Japanese Client Servicing Unit. Pete continues at Swiss Re Corporate Solutions, the former Industrial Risk Insurers, where he has worked since graduating. "We've been enjoying life as grandparents and taking in all the shows, restaurants, and sights that The Big Apple has to offer," he says.

Steve Tuckerman '76 is now a math teacher at Killington Mountain School in Vermont.

Duncan MacIntosh '76 ran the Boston Marathon this past year and has run a number of triathlons. He writes, "I love my flower garden, fine dining, cruises, skiing, and YouTube. I read more nonfiction than is good for me and will gladly bore anyone regarding the financial meltdown, World War I, or Doris Day. In short, I'm happily married, my kids haven't asked for money in the past 48 hours, and life is great."

Bill Mullen '76 retired after 30 years with the government, primarily with the Army Corps of Engineers, and plans on consulting in hydrology and hydraulics for the private engineering industry. He lives in Lunenburg, Mass., where he plays sax and keyboards and enjoys long-distance bicycle touring. "I recently got together with TKE classmates and we hit it off again as if we'd never left. I'm happily married for 31 years with two grown kids."

Art Stryker '76 completed a successful career in hardware design engineering/management, as well as hardware applications engineering. He earned a degree in internet technology from Foothill College and founded Stryer Consulting Group, a software company that develops websites and mobile apps.

Roland Moreau '76 just passed the 31-year mark working for Exxon Mobil Corp., where he serves as safety, security, health, and environment manager for ExxonMobil Upstream Research Co. His responsibilities include oversight and management of programs based in Texas and Doha, Qatar. "On a personal note, I've been married 34 years and remain based in Houston."

Jay Cruickshank '76 is executive VP and general counsel for Lane Construction Corp. in Cheshire, Conn.

Jim Howe '77 retired from National Grid this spring after 34 years and joined CHA Consulting, an engineering and design firm based in Albany, N.Y. He has teamed up with **Julie Porcaro '04** to create CHA's Gas Engineering and Asset Management Division.

John Osowski '77 was honored as Civil Engineer of the Year by the Rochester (N.Y.) Chapter of ASCE. He and his wife, Martha, spent a week in Paris—their first trip to Europe. He lives in Brighton, N.Y., where he's active on the planning board.

Matthew Ward '77 just completed his 25th year as a faculty member in WPI's Computer Science Department. He recently co-authored the textbook *Interactive Data Visualization: Foundations, Techniques, and Applications*, AK Peters, publishers.

Marcia (Huber) Berg '77 retired from DuPont in August.

Bill Cunningham '77 headed up the Northern Kentucky University Entrepreneurship Institute as interim director and has been involved in coaching a half a dozen start-up companies in the Cincinnati region. The Greater Cincinnati Venture Association awarded him the Spirit of Entrepreneurship award for his 20 years of work with the organization. "My daughter Sarah now works in Massachusetts, giving me more reasons to visit New England and the Boulevard Diner. My son, Michael, a medical engineering and music major, recently opened for Tim Reynolds and Leon Russell at venues in Pittsburgh this year. I am anxiously waiting for his work to go platinum so I can cut back on my day jobs!"

Al Barry '77 is a director and an investor in ETW Inc., an engineered tool manufacturer in Waukesha, Wisc. The company specializes in 5-axis machining and produces cutting tools and fixtures for heavy equipment, automotive, aerospace, military equipment, marine equipment, and anywhere metal is machined. You can reach Al at al@albarry.us.

Jeff Harrington '77 celebrated the 25th anniversary of Harrington Group Inc., the FPE consulting firm he started as a one-man shop in the basement of his home. The company has grown to 17 employees, with offices in Duluth, Ga., and Charlotte, N.C., and active projects in 20 states, as well as Canada, Brazil, Argentina, Colombia, and Mexico.

Dave Makris '77 has been a master solution architect with Hewlett-Packard for eight years. He works in the Enterprise Services Division, chasing IT outsourcing opportunities.

Rick Wheeler '77 was promoted to president of Capewell Components Co.

Tammy and **Bill Alexander '78** were married April 1, 2011.

Robin (Paisner) and **Robert Chapell '78** are enjoying being grandparents for the first time to Ricky Cortejoso, simply the cutest and smartest boy in the world! Robert is a vice president for Woodard and Curran; Robin is the health director for the Town of Walpole, Mass.

Laura Mattick '78 writes, "I am currently teaching high school physics at St. Mark's High School in Wilmington, Del. My husband, **Michael Poirier '79**, does business consulting and software development for a wide variety of customers. We have four children."

Peter Landry '78 lives in Little Compton, R.I., with his wife, Susan, and two sons. He works for the Diocesan Health Facilities in Fall River, Mass., as director of facility development and planning. An avid bicyclist, he enjoys boating on Buzzards Bay.

Frank Alberto '78 is vice president of quality engineering at Park Electrochemical Corp.

Wes Wheeler '78 was appointed CEO of Marken, where he manages global collection, transportation, storage, and distribution of specimens and clinical trial supplies.

Mike McDonald '79 will spend two years in China with Westinghouse to test and start up the newest generation of nuclear power plants. "This promises to be extremely rewarding both personally and professionally," he writes.

Mary (Palumbo) Seaboldt '79 switched careers and now teaches high school math at Somers (N.Y.) High School.

Tom Soszynski '79 retired from the USAF in 2003. "I now work for a contractor teaching military pilots how to fly the KC-10. New Jersey has become home, though Massachusetts ties remain strong."

Roland Brooks '79 continues as a software engineer for Raytheon in Burlington, Mass. "I enjoyed a week at Bar Harbor, Maine, this summer. My niece Sarah is Class of '14 (ME) at WPI."

Bob Parent '79 serves as director of Nike's Identity Management Program.

Mary (Farren) McDonald '79 says, "This summer I've been traveling a lot to Asia, including Seoul, Hong Kong, Singapore, Penang, and Taiwan. I also keynoted a conference in South Africa. After no international travel for the previous three years, I'm now doing laps over the Pacific!"

Andy Davidson '79 reports the birth of his first grandson last year.

After a series of mergers and divestitures, **Ken Engan '79** is now a system engineer for The SI Organization, an independent spinoff from Lockheed Martin. He has two grown children and keeps active with skiing, biking, sailing, camping, and kayaking.

Pete LaBelle '79 and his wife, Julia, traveled to Italy and Alaska. Then, after a trip to Texas, where son Alex graduated from Texas A&M and started a new job as a mechanical engineer, they waved goodbye to daughter Kelsey as she boarded a plane to continue her education in France.

Pete Basel '80 has been an independent consultant for 10 years, moving from mainly analog and digital circuit and systems design to also include robotics and machine vision. "I designed a robotic pick-and-place system that has placed over a million parts and has required little maintenance. I've also taken on some loudspeaker design work for a new mini-monitor and subwoofer system."

Margaret (Fernald) Gomes '80 is a program manager for MITRE Corp., performing research and analysis for the FAA. "I live and work in northern Virginia, but travel for pleasure when I can. Recent vacations have included Croatia and Italy. I recently spent a weekend in Chicago, visiting my WPI roommate, **Colleen O'Connor Jones '80**."

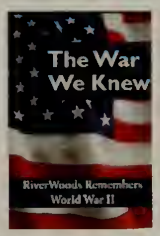
Brian Biernacki '80 writes, "I've just dropped off my son Thomas at WPI to become a member of the Class of 2015. I have been working for Coto Technology of North Kingstown, R.I., since 1993 and am now the product manager for reed relays and switches. Lucille and I celebrated our 30th wedding anniversary this year. We have four children: Andrew, Janina, Thomas, and Celina."

Ali Kabas '80 is busy with his photography and motion design business, and has started a corporate identity venture with a partner. He continues to fly the Istanbul skies in his paramotor and traveled to Lebanon recently to fly along the coast in Beirut.

Perry Esposito '80 writes, "I am an I&C engineer with Dominion Virginia Power in Richmond, where my wife, Jean, and I finally are empty-nesters (besides our three mini-Dachshunds). We enjoyed a wonderful two weeks in Toscana, Italy. Next year we're planning Paris. I also had a great time last year at our 30th WPI reunion, where I reestablished ties with my PKT brothers. WPI looked great and, of course, a good time was had by all."

Martin Rowe '80 writes, "Cindy and I bought a house in Brookline, Mass., that's now undergoing major renovations. When you remove walls and ceilings from a house that's over 100 years old, you find 100 years of bad maintenance. We wondered why the second floor was still standing, given the way someone cut out sections of joist to run plumbing. We needed a civil engineer to design new infrastructure to make the house secure. I'm still working as senior technical editor at *Test & Measurement World* even after the magazine and website were sold twice in 2010."

Bookshelf



The War We Knew: RiverWoods Remembers World War II

JACK TAYLOR '56, co-editor | RiverWoods (riverwoodsrc.com)

Soldiers, nurses, students, and others share their wartime memories in this collection of firsthand accounts from 75 residents of RiverWoods retirement community. Taylor and two fellow residents undertook the project to preserve a variety of voices and perspectives on the effects of the war, at home and abroad. His own chapter, called "A Foxhole to Play In," depicts the innocence of a child pitching in to collect scrap metal and watching soldiers train at nearby Fort Devens, while adults wait for news of loved ones. A retired physics professor and computer programmer, he lives at RiverWoods in Exeter, N.H.

Tunnel Vision

GARY BRAVER (GARY GOSHGARIAN) '64 | Forge Books

Northeastern University student Zack Kashian lies in a coma after a bicycle accident on the streets of Boston. When he regains consciousness, his near-death experiences capture the interest of religious fanatics and a mysterious group of medical researchers, in a desperate quest for answers about the true nature of the afterlife. Goshgarian is the author of seven previous thrillers and winner of the Massachusetts Book Award.

What's Your Game Plan? Backgammon Strategy in the Middle Game

MARY HICKEY '77 AND MARTY STORER | Gammonvillage.com

Two-time U.S. Open backgammon champion Mary Hickey strikes again, with a collection of 122 real-game problem positions presented in quiz format. A detailed discussion of each problem follows, with solutions diagrams and explanations. In addition to her many tournament wins, Hickey is a columnist and author of Chouette and More: The World's First and Only Backgammon Sci-fi Soap Opera.

Gareth Kucinkas '80 is living and teaching in the Swiss Alps at an international boarding school.

Susan Kollmeyer Benz '80 is a business development sales manager for General Dynamics IR Systems and Components. She lives in Hollis, N.H., with her husband, Chuck, and daughters, Emily and Molly.

Tom Trepanier '80 is working with the Institute of Nuclear Power Organizations, on loan from Constellation Energy Nuclear Group, as a senior representative.

Richard Whalen '80 is Cubmaster for Pack 78 in Framingham, Mass., where his son is starting his Bear year.

Tom Clark '81 continues as senior architect for Infoblox, a network automation company. "I live on the West Coast in Santa Cruz, and go sailing in Monterey Bay as often as possible—now that my boat has been repaired from damage caused by the March tsunami event! I spent two weeks in Portugal this summer on a combo work/play trip and heartily recommend it as a place to visit."

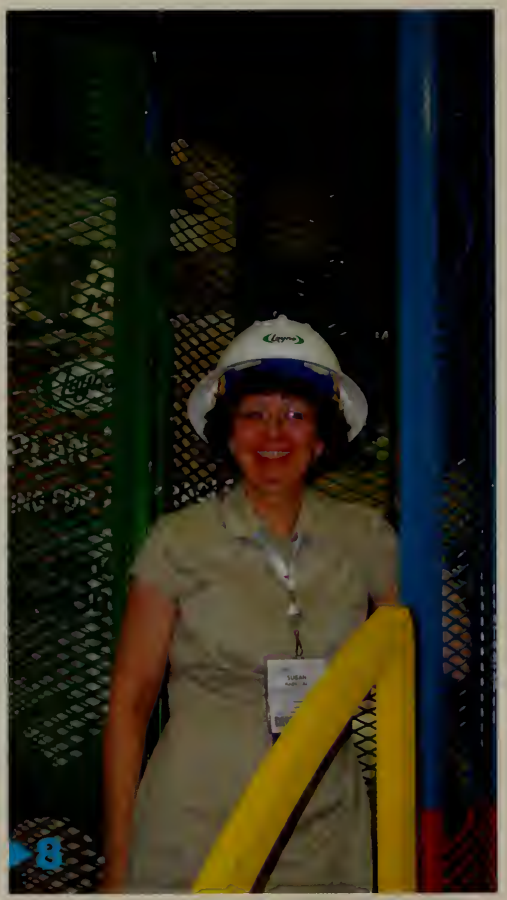
Edward Crivello '81 writes, "I am in my 29th year working for the U.S. Army at Natick Labs, where I am assistant to the director of the Natick Soldier Research, Development, and Engineering Center. We conduct basic research on product development for equipment that includes combat uniforms, rations, aerial delivery systems, and field equipment. I recently returned from a trip to Portugal with my wife, Fernanda, and our children, Matthew and Christina, to sightsee and visit with my wife's family. I visited WPI this past Sunday to drop my son Matthew off for freshman orientation as part of the Class of

2015. He is majoring in physics and is excited by the many challenges ahead."

Suzanne (Call) Margerum '81 has been living in Lafayette, Calif., for 14 years, with her husband, Dick, and children, Derick and Valerie. She is vice president of development and manufacturing at Cerus Corp., a biomedical company.

Bob Groman '81 (MS CS) is a co-principal investigator on a National Science Foundation grant supporting the Biological and Chemical Oceanography Data Management Office. The BCO-DMO manages and serves oceanographic biogeochemical, ecological, and companion physical data and information developed in the course of scientific research and contributed by the originating investigators.

Bob Hevey '81 just celebrated his 30th anniversary at General Dynamics, Electric Boat.



▶8 **Susan (Hoffma) Rabideau '81** works with the Rhode Island Department of Health to provide safe drinking water through public water systems. "DRINK TAP WATER!" she urges. The photo, taken during a recent convention, shows her posing in a replica of the capsule used to rescue the Chilean miners. "During that same conference, I reunited with my WPI roommate, **Liz (Gallagher) Benson '80**, after 20+ years of lost contact. We shared a great dinner and talked non-stop about our life's adventures, children, etc." Susan lives in Bristol with her husband and three (almost) grown children.

Mike Chechile '81 (MNS) is retired from a long teaching career and now works as a medical technologist at Baystate Medical Center in Springfield, Mass. "I traveled to China on three separate occasions to adopt three daughters. I have also traveled to Ecuador seven times over the last 10 years to help improve the lives of indigenous people by building decent housing. Life is good and there just is not enough time to do it all."

Scott Mathews '82 works at the Jet Propulsion Lab in Pasadena, Calif., in the Spacecraft Mechanical Engineering Section, Integration and Test Group. He supports several programs, including the Mars Science Laboratory, scheduled for launch in November 2011. He is also assigned to be the lead engineer for mechanical ground support equipment for the Soil Moisture Active-Passive (SMAP) spacecraft, which is being developed to monitor Earth climate. He lives in Los Angeles with his daughter, Grace.

David Rubinstein '82 writes, "After the successful sale and integration of Resolve Technology to The CoStar Group, I've moved on to become VP of Operations for Glasshouse Technologies of Framingham, Mass. Our daughter Rachel is a junior at Tulane University; our younger daughter, Sydney, is a junior at Newton South High School. We live in Newton, Mass."

Paul Dagle '82 writes, "Still working at Electric Boat, after 29 years. I've been the director of radiological services for the last 10, responsible for all nuclear submarine radiological work (new construction and maintenance/repair) both at EB and at SUBASE New London. Ann and I are empty-nesters, with all three sons working or in college. We enjoy our vacation home on the Cape as often as we can get there."

Vincent Ascioti '82 has left the CPG Sales field after 25 years and relocated to Palm Harbor, Fla., where he is now a licensed real estate agent with Bahia Realty Group. He has two children, Krista and Joseph. He writes that his wife travels the country as a senior consultant with Culbert Healthcare Solutions, while he stays home and cleans the pool!

Minje Martinez '82 (MS CE) writes, "After 27 years at Procter & Gamble in many consumer product roles, in 2010 I founded metis–market knowledge, a market research firm. Metis offers a variety of cutting-edge market research services."

Joel Swan '82 has been employed at Triple Play Integration for several years, porting and optimizing Adobe's Flash Player to embedded devices and systems.

Bradford Perch '82 married Catherine Sturgis in 2005. He lives in Holden and works at Walker Magnetics in Worcester.

Joel Kearns '83 is vice president for solar research and development at MEMC Electronic Materials., located near St. Louis. "As I write this I am visiting my company's new solar wafer manufacturing facility in Kuching, Malaysia."

Mark Besse '83 writes, "The 25 years of telecom industry programming is over for me, as I've moved into the medical IT field at Dell. My career at Nortel Networks ended (as it did for thousands after bankruptcy) at 22 years, but after a long search and retooling of software knowledge, I am glad to be at a great company. However, a career is nothing compared to the privilege of raising three fine children with Kristy, my wife of 15 great years so far."

Charles (Chip) Bienia '83 has been working for CNC Systems for the last 18 years, starting as an applications engineer, and now in sales for the last seven years.

Terry O'Coin '83 works for CSC (IT services) as the global CTO for the United Technologies Corp. account in Hartford, Conn., and lives in Sturbridge, Mass. "Beyond work, my wife, Mary, and I spend a lot of time with the kids' school and sports activities. Hard to believe we're fast approaching our 30th class reunion in 2013!"

▶9 **Steve Roy '83** and his horse, Rufus (back from the disabled list!), captured 12th place in the Northeast Regional Cowboy Mounted Shooting Championships."Gussyed-up in their finest attire, local cowboys and cowgirls mount their horses to relive the days of the Old West!" notes the group's website, masixshooters.com. (Don't worry—they're firing blanks!) Steve and his wife, **Jennifer (Udall) Roy '84**, live in Nashua, N.H. Their son, Matthew, is a member of WPI's Class of 2015.

David Rainone '83 and **Janet (Cray) Rainone '86** have two children, Andy and Melissa. David works for CBRE in support of its Real Estate Services account with Bank of America, leading the Property Management Platform and management of almost 50 million square feet of B of A property in over 5,000 locations. "I love living in western Connecticut, except there are too many Yankees and Jets fans out here!" he says.

Tom Barron '83 writes, "It's been a busy year. I just got remarried. Second time's a charm. Brought all the kids (now have 5) to the Grand Canyon, Brice Canyon, and Las Vegas (two extremes) in July. We are buying a new house so we can fit in all the kids better."

Robert Filippone '83 was promoted to senior vice president of federal advocacy for the Pharmaceutical Research and Manufacturers of America.

Joe Morgan '83 is president and CEO of Standard Register Co. in Dayton, Ohio.

Cathy Coyne Parker '83 received her master's in mental health counseling and is now a career counselor at the University at Albany. A certified life and career coach, she has her own coaching business, Trust Your Voice (trustyourvoice.com).

Scott Rudge '84 and family recently returned from a trip to the Amazon and Galapagos Islands. "Meanwhile, back in real life, I'm working on the 2nd edition of my textbook and consulting with clients in India, Europe, and North America."

Kim (Cote) Schaefer '84 writes: "I went to San Diego in August for State Games of America, where I coached some Massachusetts figure skaters, including my daughter Lily. We also took part in the opening ceremonies at QualComm Stadium (home of the San Diego Chargers), marching with the entire Massachusetts delegation. It was really exciting to take part in this national event, and Lily came home with a total of five medals."

Keith MacNeal '84 writes, "After 12+ years with Shipley/Rohm & Haas/Dow Chemical, I now work for Entegris in Billerica, Mass., as a senior quality engineer, supporting production of filtration products for the microelectronics industry. I have three children. My daughter Samantha just started at WPI and will be majoring in chemical engineering."

Bob Blackey '84 writes from Portland, Ore., where he recently celebrated the 17-month birthday of his daughter, Nora Gail, and has just left the newlywed phase with his lovely wife, Shannon.

Ed Paulsen '84 and his wife, Eileen, live in Medway, Mass. Ed is currently VP of business development at Aeroflex/Test Evolution. They have three children.

Josh Reed '84 and his wife, Karen, are proud to announce that their daughter, Kirsten, is attending WPI as a member of the Class of 2015. She is studying biomedical engineering and hopes to make the women's crew team.

Perry Riani '84 has lived near UC Berkeley in the Bay Area for over 25 years. He and his wife, Kathy, have two children. After 15 years in field engineering and high tech for major corporations and as president of PACE in the 1990s, he moved into commercial and residential real estate in 1999. Perry has been busy promoting WPI at Oakland Technical High School's rigorous Engineering Academy, competing in a fundraising triathlon for the Leukemia Society, and vacationing in Mexico, Lake Tahoe, and other western destinations, as well a trip to Boston and Portland, Maine, to visit family and friends.

Dean '84 and **Rochelle (Scala) Holman '85** recently celebrated their 25th wedding anniversary. Their older daughter, Nichole, is a sophomore at WPI, and they have been taking their second daughter, Corey, on campus tours all around New England. They also have a son in high school who excels in math and science. Dean is manager of sustaining engineering at Mercury Computer Systems in Chelmsford, Mass.

Jean (Salek) Camp '84 writes, "My husband, David, and I are enjoying life on Kaua'i—with time for yoga, paddling outrigger canoes in Hanalei Bay, and hosting pizza and bocce parties." Jean's project management consulting keeps her busy. She also enjoys cruise trips and mentoring students on the island to expose them to engineering.

Howard Miller '84 practices law in San Francisco at the firm of Bartko Zankel Tarrant and Miller, focusing on general business, antitrust, and intellectual litigation. He and his wife, Lisa, have two children.

Michelle Bugbee '84 works at Solutia Inc. in Springfield, Mass., as intellectual property counsel for multiple divisions. "I enjoy the combination of technical and legal that working as a patent attorney provides me. I took a wonderful and relaxing cruise in the Mediterranean at the beginning of July."

David Parker '84 works for EFI (Electronics For Imaging) as director of engineering. He lives in Hillsborough, N.H., with his wife, Susan, and four children.

Dennis Aves '84 writes, "My wife, Terri, and I recently celebrated our 25th wedding anniversary with a wonderful trip to Hawaii."

Daniel Farrar '84 was appointed CEO of ezRez Software in San Francisco.

Bruce Harley '85 is in the process of re-writing his first book, *Insulate and Weatherize* (2002, Taunton Press). The new edition should be available in fall 2012.

Virginia (Noddin) Knowles '85 has lived and worked in many settings since graduation, including Mississippi, North Carolina, and now New York. "I am married with (4) children. We enjoy hiking, camping, occasional travel, and annual visits back home to Maine. I work in our local school system (and keep tabs on my kids!). I sure enjoyed connecting with classmates at our Reunion last fall—even managed to survive rowing in the alumni crew race on Lake Quinsig!"

Judie (O'Coln) Walker '85 has been teaching sixth grade in Easton, Mass., for the past five years. She and her husband, **Rick Walker '84**, are proud to say that two of their three children are students at WPI.

10 Ken Johnson '85 toured Rome with his family in 2010. "This month my boys and I took a lap around the Nordschleife (Northern Loop) at the Nürburgring motorsport complex. I felt like Clark Griswold in *European Vacation*," he says. Ken has been with Hewlett-Packard for over 20 years and is currently a global account director, traveling internationally.

Jeannine Machon '85 returned to Colorado after three years in Copenhagen, where she happily watched the 2008 election turmoil and the financial crash from afar. She is now working with chemical analytical equipment—marketing products for a start-up company and starting up a company of her own. "With two kids in high school and little time available, I have plugged into the WPI alumni group in the Denver area this summer, reminiscing about local Worcester addresses and events. It is a bit daunting, though, to talk about "the comp" and be met with a blank stare."

Gail (Anderson) Tenney '85 changed jobs in February, becoming a support product manager for IBM Rational after 11 years in software development. "My outside interests include being Cubmaster for Cub Scout Pack 731 in North Reading. Mass., and serving on the church stewardship committee. My husband, **Doug Tenney '86**, and I continue to be busy raising our children, Andrew, Ben, and Christine."

Mark Carpenter '85 and his wife celebrated their 26th wedding anniversary. He works as a telecom industry consultant and is creating a start-up that will provide a new category consumer product that's 100 percent made in the USA.

Steven Davi '85 was promoted to senior vice president of advanced technology at SeaChange International, based in Acton, Mass.

Mara (Catlin) Duffy '86 is enjoying life in southern New Hampshire with her husband, Gordon, and their 9-year-old son, Kyle.

Cliff Dufresne '86 is a project manager at Invensys PLC.

Cheryl Macedo '86 writes, "Just back from a wonderful three-week vacation to Alaska and Las Vegas. I made it through two earthquakes (5.4 and 5.8) in less than a month!"

Frank Statkus '86 (MS MG) serves as a program and project manager for multiple radar systems. "My management degree was right on with an up-to-date approach to solving project problems."

Nick Tsapatsaris '86 says, "I am a professional engineer and registered architect specializing in real estate development projects, including an award-winning center city mall in Paterson, N.J.,—the largest private investment that city has seen in the past 100 years." Nick and his wife, Stacey Vlavianosi, have three daughters, Anika, Ellie, and Michaela.

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Mercedeh Mirkazemi Ward '86 writes, "I was diagnosed with breast cancer in June 2010. After six rounds of chemo, lumpectomy, and 38 rounds of radiation, I am back to being healthy. I worked through all my treatments (except three days after surgery), and my co-workers gave me lots of support. We even made a list of "10 Best Things About Chemo." After being laid off, I took the summer off to enjoy some time with my children, Kyle and Arianna."

Erin (O'Connell) Madden '86 lives in Lynnfield, Mass., with her husband, Bruce, and three children, Jack, Lucy, and Michael. She is senior manager, mechanical, at MKS Instruments in Wilmington, Mass.

11 Bob Wilton '86 is a software development manager at Microsoft Corp., working with a team of developers from Charlotte, N.C., Seattle, Shanghai, and Bangkok. He says, "On a recent trip to China, I had a once-in-a-lifetime opportunity to see the Terracotta Army near Xi'an. My wife, Rhonda, and I have two sons and a wonderful granddaughter."

12 Ron Barth '86 says, "After 20 years in database application development, I purchased the company that I was working for, Alternative Systems. I am now owner of a software development firm. My other passion is music. My band, Clockwork (clockworkboston.com), has been playing wedding receptions for 20 years. At WPI I formed the East Coast Jam band with Theta Chi brother **Jim Sahadi '85**, and we performed for WPI's first-ever Battle of the Bands. Great memories."

Dennis Donovan '86 has begun his 20th year as a math teacher at Xaverian Brothers High School in Westwood, Mass. He teaches AP calculus and AP statistics, and travels to Kansas City each June to serve as table leader on the national grading team. He's also a referee for NCAA football at the FCS level in the Ivy League, Patriot League, and Colonial Athletic Association (former Atlantic 10).

Mark Fitzgerald '86 was elected to partnership at Nixon Peabody LLP, where he is a member of the Litigation and Intellectual Property Dept., focusing on biotechnology.

Jeffrey Plouffe '86 is working with at-risk kids in a night high school math class in Lewisville, Texas.

Donald Walker '87 married Marybeth Porcello in 2009, at the Twin Drive-in in Mendon, Mass.—10 years to the day after their first date there. Their wedding favors were windshield cleaning cloths printed with a picture of the drive-in and their names. Their romantic wedding was covered in the local newspaper. Don writes that he hopes to always remember their anniversary: 7/8/9.

Ron Welter '87 says, "Life is happily chaotic with my three children in or out of college, and their stories always bring me back to my own time at WPI. My wife and I are easing toward the next phase of life, looking forward to all the free time we'll get to have while still young of body and mind."

Sue Lindberg Shanahan '87 lives in Princeton, Mass., with Mike and their kids—Liam, Collin, Clare, and Quinn. She works for the town as parks and recreation director, and as children and teens recreation director for the family's home-away-from-home summer community on Lake Winnipesaukee.

Jeffrey Bloom '87 is CTO and director of engineering for Dialogic Media Labs, a division of Dialogic, developing technology and products for measuring the perceptual quality of video delivered over mobile networks. He lives in Princeton Junction, N.J., with his wife, Pam, and three kids.

Peter Ingle '87 writes from Salt Lake City, where he is director of the Learning Coalition at Westminster College. After 11 years as associate professor of education, he now supports professional development of college faculty. "At the American Association of Colleges and Universities conference last year, I ran in to several faculty and administrators from WPI and told them how excited I was to see them there. Many of the topics discussed as novel ideas at the conference were things I experienced at WPI almost 25 years ago! In addition to my work life, I have a wonderful wife and two boys (10 and 12). We love the life in Utah, as we are skiers, bikers, and hikers."

Jim Goodell '87 recently had the privilege of connecting four great organizations—WPI, the Center for Educational Leadership and Technology, the National Association of Elementary School Principals, and Edutopia/The George Lucas Educational Foundation—while putting together a grant through Next Generation Learning Challenges, funded by the Bill and Melinda Gates Foundation and the Hewlett Foundation. In June, Next Generation Learning Challenges announced WPI's ASSISTments project as one of the winning proposals. The project will rapidly expand the use and impact of the learning technology developed at WPI by Professor Neil Heffernan and his team. Jim lives in Oxford, Mass., with his wife, Patti, and three children.

Christine (Burke) Nichols '87 is currently principal consultant to Regulatory Consulting Services. She works with medical device companies to get products approved through regulatory agencies in the U.S. abroad. She also participates in the Women in Industry Networking (WIN) program at WPI and mentors professionals wanting to work in regulatory affairs. Her 13-year-old son attended the state championship for Destination Imagination at WPI this spring.

Michael Fronczak '87 continues as a product data management advisor for ExxonMobil Lubricants in Paulsboro, N.J. He and his wife, Celeste, live in Glen Mills, Pa., where he enjoys attending swim meets with their four children.

Stephen Madaus '87 was elected partner in the Worcester-area law firm Mirick O'Connell. He specializes in municipal land-use and environmental proceedings.

Scott Flaherty '87 was promoted to senior vice president of finance and CFO of Colt Defense LLC.

Carmen Romeo '87 left a GM position with a manufacturing company and, with his wife, Louise, took on management of her family's chocolate manufacturing and retail business. "So, I am an Engineer turned Chocolatier and life is sweet! Our business is Fascia's Chocolates, founded by my mother- and father-in-law in 1964. We take pride in hand-making all of our products in time-honored fashion; the resulting gourmet products speak (taste) for themselves. Interestingly, chocolate involves a lot of science, the machinery involved in manufacturing needs constant maintenance, and we've developed a few aids along the way, so an engineering background is a plus. We have two children, Lauren and Matthew, and keep up with a core group of fellow graduates."

Mark Osborne '88 is a program executive for Shire HGT in Lexington, Mass., where he frequently works with **Pat Sacco '86**. "The teams I lead are developing new drugs to treat rare diseases in children. At home, my wife of 21 years works hard (but doesn't get paid) raising our three kids, Alex, Katie, and Tyler. Alex applies to college this fall and is thinking about mechanical engineering—who knows, maybe a second-generation WPI engineer?"

Susan (Shorey) '88 and **Timothy Ferrarotti '90** recently celebrated their 20th wedding anniversary by visiting Grand Teton, Yellowstone, and Glacier national parks with their three boys. Susan is a senior engineer at Chemtura Corporation in Naugatuck, Conn. Tim is a physician assistant in emergency medicine and teaches at Quinnipiac University in North Haven, Conn.

Sue (Giroux) Sontgerath '88 has been working at WPI since 2008 in the Office of K-12 Outreach. "I recently took a new position as an assistant director of admissions, and I am looking forward to sharing all the great things about WPI with prospective students. My husband, Heri, and I live in Shrewsbury, Mass., with our two daughters, who are in high school."

Teresa Tucchio '88 continues as an engineering specialist at Electric Boat.

Mark Miller '88 is a senior software engineer in Flight Dynamics Group at Sikorsky Aircraft. He is working on his MBA and enjoys playing music in his free time. He lives in Trumbull, Conn., with his wife, Adriana.

Daniel Hoaglund '88 writes, "I've been in the telecommunications industry for over 15 years and have been at Acme Packet for the past 2.5 years. I've been happily married for 12 years to my bride, Annise, and we've lived in Weston, Mass., the entire time. We have enjoying our summer weekends on Cape Cod with our two children, Sophia and Evan, and are renovating our summer home in Osterville.

Tim Shea '88 is co-owner of Alpha NetSolutions Inc., a provider of outsourced IT for small businesses in Millbury, Mass. "I have recently been signed to write editorials for itchannel-insight.com," he writes. "I am an assistant scoutmaster with Boy Scout Troop 66 in Thompson, Conn., and attended "Wood Badge" training, which is advanced leadership training for adult Boy Scout leaders. I have also been invited to participate in the "Genius League," an advanced marketing peer group.

Vinay Kundaje '88 and his wife, Donna, celebrated their 20th anniversary by going to Italy this past summer.

William Riccio '88 writes, "I am completing my fourth year with the City of Newport, R.I., as director of public services. On the personal side, I continue cycling as much as can be fit into my schedule and look forward to doing a little traveling to the Caribbean and Denver in the coming months."

Bryan Sheppeck '88 writes, "I am living in Loudonville, N.Y., (next to Albany), and working at Avaya. My four kids keep me jumping. Our seventh annual Red Sox road trip with a group of other WPI alums took us to Pittsburgh in June. Previous years took us to Philly, Chicago, San Diego, Baltimore, Toronto, and San Francisco."

Angela (Iatrou) Simon '88 began an MS in construction management at Wentworth Institute of Technology. She works at Tutor Perini Corp., and lives in Southborough, Mass., with her husband of 15 years and three children, Korinna, Xander, and Nathan.

David Picard '88 took his operations and business process management consulting company (PSInd LLC) full time and signed on three new clients in the past year. PSInd provides BPM solutions to clients in banking, financial services, and insurance, among others. He lives in Framingham, Mass., with his wife, three children, and a 130-pound Shiloh Shepherd.

Greg Duplessie '88 started ExecEvent, a new company that brings together technology executives in the data storage, cloud, virtualization, and data center industries for networking and learning. Greg is married, with two children. He lives in Ridgefield, Wash.

Christine (Poirier) Nolan '88 is director of communities at the Mass Tech Leadership Council, where she helps foster entrepreneurship and drive innovation in the state.

Carl Moore '89 works at Maxim Integrated Products in Chelmsford, Mass., as executive director of test systems development. "I recently presented a keynote address on Analog Integrated Circuit Test at the North Atlantic Test Workshop. Had a great summer, with travels to London, Paris, Iceland, and LA!"

Paul Halloran '89 is associate director of quality control for Sekisui Diagnostics. He lives in Auburn, Mass., with his wife and children.

Brian Horgan '89 is project director for the construction of the new corporate headquarters for United Illuminating in Orange, Conn., where he has worked for 22 years.

Lisa (Jalbert) Menard '89 is the proud parent of a second-generation engineer. Tyler Menard is a computer engineering/computer science major in the WPI Class of 2014.

Dave Sauriol '89 writes, "The June 8 tornado tore through my town of Monson, Mass., and took out our downtown area and a lot of homes. Thankfully, I live north of town and was spared. I just launched my quest for completion of the New England 67 (4,000-footer peaks). I completed the New Hampshire 48 last year (a 2+ year effort) and started on the Maine 14, hitting Abraham, Saddleback, Horn, and Sugarbush on my first weekend trip. If anyone else out there is crazy about gaining elevation by foot, drop me a line on Facebook at Hikin' Dave. I am chair of the Berkshire Chapter of the Appalachian Mountain Club, and we'd love to have you join us."

Brian Perry '89 was recently promoted to vice president and general manager of Mercury Computer Systems' Services and Systems Integration (SSI) business unit. He previously worked for Suntron Corporation's Northeast Express. He lives in Andover, Mass., with his wife, Paula, and children, Sydney and Ryan.

Greg Gibson '89 has been a captain at General Electric Corporate Air Transport for eight years. He recently returned from a trip through Russia, India, and China. He lives in Southbury, Conn., with his wife, Donna, and their three children, Kennedy, Courtney, and Nathan.

Adam Pease '89 published *Ontology: A Practical Guide*, available from his company, ArticulateSoftware.com. He also started a new job as a research scientist at Rearden Commerce, developing ontologies and natural language understanding components for personalization.

Kevin Beaulieu '89 has a new position at EMC. He was promoted to senior consultant in the Education Services Division, working on the new data warehousing and analysis product lines.

Glenn Butler '89 launched CTO Services in Holliston, Mass., providing technology consulting services to manufacturers. He was previously CTO at Crane Merchandising Systems.

Donna DeFreitas '89 joined Boston-based Vanderweil Engineers as an associate principal, working from the company's New York and Philadelphia offices.

Kimberly (Kuzmitski) Beaulieu '89 was promoted to senior quality systems engineer at Smith & Nephew in Mansfield, Mass.

Brian Weissman '90, his wife, Lynnea, and their two children, Maya and Josh, have relocated to Orlando, Fla., where Brian is working as a technical specialist for the Walt Disney Company.

Paul Graves '90 (MS EV) was appointed deputy director of the Design & Construction Management Department at the University of Kansas in August 2011. He previously served as assistant chief engineer in the Kansas Department of Agriculture's Division of Water Resources. Paul and his wife, Jane, reside in Lawrence, Kans., with their two daughters.

Carlos Cruz '90 is general manager for a straw manufacturing company based in Colombia. "I have worked in several multinational companies as general manager, and now I am leading this family-owned business."

Achille 'Al' Alonzi '90 writes, "Five years ago I announced the birth of my daughter, Elizabeth. On June 6, 2011, my wife, Susan, and I welcomed Lauren Patterson to the family. My son Edward, 7, announced that he wants to be an engineer like Dad. Stay tuned..."

Aaron Konvisser '90 says, "I have been living in San Diego for over 10 years now and often marvel that I live in a place that people come to for vacation. I am working for Nokia, which is the best company I have ever worked for. They truly respect their employees and create very-high-quality products. I still think of WPI and often tell people about the Plan and how well it fit my learning style."

Kyle Petersen '90 was promoted to captain in the U.S. Navy medical corps, where he serves as executive officer of Naval Medical Research Unit 6, in Lima, Peru. He oversees a lab with several hundred employees focused on infectious disease research for vaccines and products to protect the war-fighter, as well as host nation capacity building, and epidemiological surveillance.

Todd Miller '90 manages the satellite ground station responsible for the Washington-Moscow Presidential Hotline. He has been working with Honeywell for the past 13 years. Todd writes that he enjoys the single dad life and is finishing up the restoration of his 1967 MGB GT.

▶13 The underwater PBS series "Blue World" by **Jonathan Bird '90** won three Emmys this year. As host of the series, he received the award for best On-Camera Talent Program Host/Moderator. In addition, the Blue World production team received the award for best Magazine Feature/Segment for "Lobsters" and best Children/Youth Program for "Antarctica."

▶14 Col. **Rory Welch '90** toured the space shuttle *Atlantis* in June, before its final mission. As vice commander of the 45th Space Wing, Patrick Air Force Base, Fla., he is responsible for the processing and launching of U.S. government and commercial satellites from Cape Canaveral Air Force Station, leading more than 2,000 professionals assigned to operating locations in Florida, Ascension, and Antigua, plus an additional 90 deployed to Iraq and Afghanistan. Rory's son, Ryan, is a member of the WPI Class of 2015.

Wendy (Parker) Holsberger '90 was married in November 2010 to Carl Holsberger. She resides in Albany, N.Y., and works at Creighton Manning Engineering, where she has managed the transportation group for 12 years.

Lynn Timmerman '90 (aka "The Maven of Savin'") shares her money-saving and organization techniques at her website, mavenofsavin.com. A former process engineer and physics teacher, she's now a wife and SAHM (stay-at-home mom), raising three children and two Kangal dogs in New England.

Ken Comey '90 living in Austin, Texas, with his wife, Julie, and son Joey, 5. Ken is working for BP Products NA as a senior environmental advisor on the Environmental Compliance and Advocacy team.

Joe Uglevich '90 has an environmental infrastructure practice, managing wastewater, sewer, and related planning and design projects in New England and across the U.S. and Canada.

Paul Kirkitelos '90 writes, "Just completed my first Ironman triathlon in July. The event was called the Vineman Triathlon, held in the wine country of Sonoma County, Calif."

Chris Hegarty '90 was named a 2011 IEEE Fellow.

Eric Brown '91 recently finished a two-year study of shamanism with the folks at Spirit Passages.

Peter Borden '91 writes, "After 15 years in technical and sales operations at PTC, I have taken on the role of business development director. My WPI education continues to positively impact my life and career."

Orhan Arsel '91 writes, "Living and working in Istanbul and enjoying my 20-month-old daughter, Ada. Went on an off-road motorcycle tour in South America in August, starting from Salta, Argentina, and going through Bolivia and Chile. Would like to hear from local alumni currently living there. Contact me at orhan.arsel@gmail.com."

Rob Douglas '91, '93 (MS CS) and his wife, Teresa, welcomed their first child home this past March; Daniel was born in Incheon, South Korea, on March 17, 2010. Rob continues as a principal computer scientist and project lead at the Space Telescope Science Institute in Baltimore, supporting the Hubble and the upcoming James Webb space telescopes.

Frank Christiano '91 still resides in Sugarland, Texas, with his wife, Kerri, and children Angela, Ryan, and Faith. Frank just celebrated 20 years at Chevron.

Jim Harrison '91, president of WJH Engineering Consultants, has moved his medical device design, analysis, and testing facility to a new location in Chattanooga, Tenn.

Erik Perry '91 was promoted to CEO and elected to the board of Natural Blue Resources.

David Planchard '92 is the founder of D&M Education LLC, after 27 years in industry and academia. He has six patents and has published and authored numerous papers on machine design, product design, mechanics of materials, and solid modeling.

John Desormier '92 is an engineering specialist at Electric Boat in Groton, Conn. He tests weapons systems for Trident, SSGN, and Virginia class submarines. He is also a commander in the Navy Reserve and is CO of a submarine operations unit based in Akron, Ohio. He lives in Gales Ferry, Conn., with his wife, Sarah, and their children, Jack and Kate.

Chris Easton Dusio '92 is chief systems engineer for Pro Line 21 Synthetic Vision System at Rockwell Collins, in Cedar Rapids, Iowa. "I married a software engineer, so yes, we have lots of computers and home automation. My husband, Joseph, and I traveled to Italy three years ago (for those who didn't notice, Dusio is an Italian name), which was a real treat. It was interesting to go back to Venice, where I spent the summer at WPI's Project Center. For fun, we like to go trekking on trails, even in the winter when it's 18 degrees below. We also like to ride motorcycles and read (OK, on a Kindle)."

Jen Schaeffer '92 continues to work for CH2M HILL as a civil engineer in southwestern Virginia and is currently studying Chinese medicine in North Carolina. "I am greatly enjoying studying qualitative physics after a career's worth of quantitative physics."

Concetta DePaolo '92 was recently promoted to professor in the Scott College of Business at Indiana State University. She lives in Terre Haute with her husband, Dave Rader, and their daughters, Megan and Abigail.

David Small '92 spent several weeks climbing poles and restoring voice and data services for Verizon customers during the 16-day strike by IBEW and CWA. "As a management employee, I was called upon to fill in as a maintenance and repair technician. It has been a while since I've been so close to the customer, and it was gratifying to receive their thanks for helping get their services back up and running."

Tania Wolanski '93 lives in Colorado with her husband, Rich Summers, and children, Grace and Garrett. "I work in product development and product engineering at Ricoh in Boulder (formerly InfoPrint Solutions, formerly IBM). It's a busy phase in life, juggling work and family. In our free time we enjoy the Rocky Mountains—biking, hiking, fishing, and the beautiful place where we live."

Jeff Jorczak '93 took a position as VP of information technology at Medical Risk Management (MRM) in Hartford Conn. He lives with his wife, Missy, three kids, and a dog.

In the past year, **Charles Homan '93** and his wife, Moira, and sons, Forrest and Conrad, have visited Denali National Park and Chugach National Forest in Alaska, Great Smoky Mountains National Park in Tennessee/North Carolina, and the National Mall and the Smithsonian Air and Space Museum in Washington, D.C. Charles continues to work as a systems administrator at General Dynamics C4 Systems in Needham, Mass., where he has been employed for 10 years.

Scott Pease '93 writes, "The last year has brought a number of changes. In late 2010 we moved to a new home in Naperville, Ill., (Amy's home town!) and gained a new member of the family—a West Highland Terrier named Wesley (as in "the Dread Pirate Roberts"). Then in early 2011 I left my employer of 12 years (Sapient) and ventured on to Microsoft as a technical account manager in the Midwest District."

Heather (Polacek) Kapushoc '93 and **Stephen Kapushoc '94** write to say, "We took our three children—Lucian, Natalie, and Hayden—on a summer tour of New England, with stops in Rhode Island, Massachusetts, New Hampshire, and Maine. Of course, a visit to the Wachusett Brewing Company was a must! We live in Herndon, Va."

Jeff Rembold '93 writes, "I'm living in Rochester, N.Y., with my bride of nearly 15 years and five children. I am working for PTC as a senior applications engineer and having a blast (no pun intended) helping aerospace and defense companies improve their product development processes. Last May I ran my first marathon, an extremely muddy trail run along the Genesee Gorge in upstate New York. I enjoy playing with my children, home brewing, and reading as much G. K. Chesterton as I can."

Nestor DeoCampo '93 notes, "I just tallied the number of students I have instructed over the last seven years and discovered it has exceeded 5,000."

Matt Zembruski '93 writes, "I live in Hudson, Mass., and I enjoy bringing my son to WPI for Homecoming just about every year. For the last eight years, I've been baking handmade energy bars from scratch and eating one for breakfast just about every day. After some considerable thought and planning, I decided to create a company to bring them to market this year. Imagine a fresh-baked brownie that's organic, gluten-free, and vegan that will keep you feeling satisfied for hours. It's super healthy and tastes amazing."

Matt Friend '93 writes, "Danielle, our girls (Hannah and Emma), and I have planted ourselves in Holden, Mass. Danielle runs the Holden Veterinary Clinic and I am wrapping up my sixth year at MathWorks. We spent a week of camping in beautiful Acadia National Park this summer, and a week in Chatham."

Laura Gregory Roberts '93 was recently named to the "Top 40 Under 40" list" by *Connecticut Magazine*. She is an information systems manager at Hartford's Saint Francis Hospital. Diagnosed with multiple sclerosis five years ago, she now volunteers for the Connecticut Chapter of the National MS Society, in addition to her many other civic activities.

Susan Tarallo '93 heads the math department at Millbury High School, where she has taught for seven years. After 11 years teaching math, she enrolled in the MME (Master of Math for Educators) program at WPI and is now finishing a capstone project. She serves on the Poly Club Executive Council and the Hall of Fame Selection Committee.

Anthony Donato '93, a project manager at Nitsch Engineering, earned the designation of Certified Floodplain Manager (CFM).

Matt Thibodeau '94 and his wife, Jody Koch, are thrilled to announce the birth of their first child, Mitchell Joseph, born Jan. 14, 2011. They live in Chicago.

Chris Newell '94 writes that he is enjoying adventures with his elementary school–aged daughters, and explaining to them the science and engineering behind the way the world works. "Today we will probably head outside into the wind and rain of the tropical storm for a lesson."

Barbara (Doyle) Atkins '94 was a bone marrow donor in August. She was on the marrow registry for four years before

she got the call. "It was an amazing experience!" she says. She lives in Arlington, Mass., with her husband, **Aron Atkins '96**, and daughter, Linda.

Matthew Ford '94 writes, "It's been an interesting year. I found myself in Dubai and Beijing on business. The start of the school year brings a return to normal in the home. Our eldest son will march in the Holiday Bowl in San Diego this winter."

Chris Cogliandro '94 is a program manager for the Aerospace Defence and Positioning Control business segment of The Timken Company.

▶15 **Anthony Maselli '94** writes, "Karen and I have spent the past few months introducing our baby daughter, Lilla, to the sights and sounds of summer in New York City: a (rainy) jazz concert in Madison Square Park, the Mermaid Parade in Coney Island, the July 4th fireworks in New York Harbor, street fairs and playgrounds, and Staten Island's 350th anniversary celebration." They make their home in the St. George neighborhood of Staten Island. Both parents freelance as an NYC-based graphic design/photography team.

Brad Waterson '94 recently jumped into a career in medical devices with Smith & Nephew. He lives in Central Mass with his wife, **Pamela (Jannarelli) Waterson '96**, and two children. Brad has shed his shoes in the past year and found childlike joy in running barefoot. Read about his journey at durtyfeets.blogspot.com.

▶16 **Warren Smale '94** enjoyed a western Caribbean cruise with Lambda Chi Alpha brothers **Joe Klimek '94** and **Cory Jobe '93**. "Digital camera in pocket, we toured Haiti, explored Mayan ruins in Mexico, and climbed a thousand-foot waterfall in Jamaica."

Michael Bruce '94 was named Entrepreneur of the Year at the 27th annual MIC Gold Star Awards celebration hosted by the Virginia Minority Supplier Development Council. He works for InScope International in Reston, Va.

Shawn Pete '95 writes, "In October of 2007, I married Jasmine Weston, a local to Yucca Valley, Calif., where we currently live. I work at Esterline Defense Technologies as a mechanical engineer II and as a CAD administrator for four U.S. sites since 2009."

Gregory Charland '95 is currently CEO of Charland Technology, an IT consulting and support company. He has also been elected to the board of directors of the Greater Gardner Chamber of Commerce. He lives in Hubbardston, Mass., with his wife and six children.

Brady Townsend '95 writes, "Began teaching mathematics at Wachusett Regional High School (my old high school) in the fall of 1997, and have been there ever since. I've created two new courses at the school, including a project-based course using data, help, and information from WPI's REU and MII programs. I married Tracey Lee Fenn in 2005. Our first daughter, Cassandra, was born in 2006, followed by Alexandra in 2008."

Joe Santos '95 says he's still trying to figure out what he wants to do when he grows up. He recently graduated from the Naval War College in Newport, R.I., and was assigned to the Chief of Naval Operations staff as the head of the Naval Warfare Integration Group New Concepts and Innovation Team. "I am patiently awaiting my next assignment, hopefully as commanding officer of a submarine."

Brooke Kuffel O'Connor '95 and **Jim O'Connor '92** welcomed their second child, Sean Michael, into the world on March 19, 2011. Big sister Claire adores her new little brother.

George Chu '95 says, "My wife, Carolyn, and I are busy with our kids William and Madeline. After getting my MBA from MIT, I entered the nonprofit sector and am currently the chief analytical officer for Citizen Schools, an education reform organization."

Heather (Linnehan) Desmarais '95 writes, "Over the past seven years, I've been a stay-at-home mom to my children, now 7 and 5. I served as group leader at our local children's playgroup center and worked my way up to co-president. Now I'm office manager, a role that allows me to work from home and still be a SAHM. I plan on going back to work in the fall when my youngest starts kindergarten."

Ross Pease '95 writes, "Two years ago I took a military leave of absence from my job flying for UPS and went back into the Air Force full time. I'm currently based out of Camp Smith, on Oahu, Hawaii. We've added to our family and now have two sons, Josh and Seth."

▶17 **Lisa Cigal Schletzbaum '95** (center) serves as president of the Women in Transportation Seminar, Boston Chapter, along with board director **Sarah Dennechuk '99**, and secretary **Carrie (Belanger) Rocha '96**. A number of other alumnae are members of the chapter. Lisa and her husband, **Roy Schletzbaum '95**, live in Norwood, Mass.

Jeff Mullen '95 and his wife, Kerry, celebrated their 10th anniversary this summer. They currently live in Tewksbury, Mass., with their daughters, Julia and Olivia. Jeff is a manufacturing engineer at Astra Tech in Waltham, Mass.

Pam (Kelly) and **Steven Sluter '96** are proud to announce the birth of their fourth child, Luke, born in March 2011. He joins Isabelle ('01), Bethany ('05), and Aram ('08). They also adopted two labrador retrievers, Smokie and Sadie. Both are adjusting well to their new home.

David Dufort '96 writes, "After working in the Midwest and up and down the East Coast for 12 years, I returned to Massachusetts three years ago to work for AstraZeneca in Westboro. Laura and I have two girls and a boy, each born in a different state."

Jesse Parent '96 competed in the 2010 Individual World Poetry Slam in Charlotte, N.C., and received second place overall. He also traveled to the 2011 National Poetry Slam team competition in Cambridge, Mass., with the Salt Lake City slam poetry team, where they reached the semifinals and finished 19th out of 76 teams.

Michael Spellman '96 writes, "This summer we enjoyed a five-day Disney cruise. Our youngest son loved the Sea Lion Encounter at Blue Lagoon in the Bahamas."

▶18 **Justin Carter '96** works for Boeing/NASA at the Johnson Space Center in Houston. "We recently reached 'wheels-stop' for the Space Shuttle Program. This brings an end to the 30 years of Space Shuttle operations. Before the end of the program I had the chance to fly a Space Shuttle simulator in the Shuttle Integrated Avionics Laboratory. I also traveled to the Kennedy Space Center for the STS-135 landing. It was a bittersweet moment to have brought the *Atlantis* home for the last time."

Sue (MacPherson) Kristoff '96 celebrated the fifth anniversary of her consulting business, The Kristoff Group. She continues to work with small technology–focused businesses to identify and respond to federal R&D grant and contract solicitations.

Cathleen (Connelly) Carmignani '96 was married recently to Richard Carmignani. Cathy is a math department chair at Algonquin Regional High School in Northborough, Mass. She and her husband reside in Dudley, Mass.

Teri (Burrows) Brehio '96 writes, "I was recently been promoted to medical education director at New Hampshire Dartmouth Family Medicine Residency after practicing here for 10 years."

Samuel Fix '97 writes, "Since 2001, I've been building spacecraft at the Johns Hopkins University Applied Physics Laboratory in Maryland. I worked on the *Messenger* spacecraft (orbiting Mercury), the *New Horizons* spacecraft (on its way to Pluto), and two radar instruments that are circling the moon (LRO and India's Chandrayaan-1). I'm currently working on a pair of spacecraft that are going to study the earth's radiation belts (RBSP), due to launch in 2012. My wife, Allison, and I have an 18-month-old son named Colin. His favorite game is climbing on EVERYTHING in the house."

Mike Glynn '97 and his wife, **Rosanna Catricala Glynn '99**, have settled down in Connecticut with their three boys. "I currently work for UTC Power (UTC's fuel cell division) and direct the communications and marketing activity for the company."

Erika (Simpson) Wachs '97 has been with the same company, W. L. Gore and Associates, for 14 years, which is quite untraditional these days. "Another interesting fact about me, unrelated to my career, is that I started doing sprint triathlons last summer. I completed my second season this year and now have five triathlons under my belt. I placed for the first time this year in my age group with my two little boys cheering me on and my husband competing in the same race!"

Jimmy Pai '97 writes, "This is my second year in Maui running a one-man IT department for the Fairmont Kea Lani, one of the greenest hotels in the state." With the Kea Lani Green Team, he has implemented innovative initiatives, including thermostats that communicate with the hotel's database to automatically turn on when a guest checks in and shut off when a guest checks out.

Deb (Foley) McManus '97 leads the product management function for the trace division of Morpho Detection, a leader in explosive and narcotics detection for aviation safety, checked baggage screening, and military and critical infrastructure protection. She lives in the Greater Boston area with her husband, Steve, and sons, Patrick and Matthew.

Peter Manolakos '97 moved with his family (Ani, Niko, and Anthony) to Shrewsbury, Mass., this summer. He also received his MS in clinical research from Drexel College of Medicine. He still works for Eli Lilly's Oncology Specialty Division and will celebrate 15 years with the company next year.

Jonathan Ross '97 is a safety and reliability engineer at Hamilton Sundstrand, providing analysis on human spaceflight programs such as the *Orion* spacecraft and the EMU space suit. He lives in Windsor Locks, Conn., with his girlfriend and is pursuing an MBA through a WPI CPE cohort.

Matthew Dowling '97 takes care of veterans as an attending physician at the VA-New Jersey Health Care System. Matt and his wife, **MariLisa Billa Dowling '98**, welcomed their first child, Luca ("Class of '33?"), into the world on October 7.

Kibwe Jonay (Jones) '97 writes, "In January, I delivered our second child, Kibwe Gideon, at home. My wife was in labor for a half hour, then the baby crowned before we could make it to the car! He was born without issues; the paramedics came after the event and took Jenn and our newborn to the hospital."

Michael Feely '97 recently completed his 11th year at the U.S. Patent & Trademark Office. He and his wife bought their first house, on Capitol Hill in D.C.

Charles Prescott '97 is a senior project manager at CMI in Erie, Pa.

Jeannine (Block) Lovering '98 writes, "The Lovering family has been busy in Mystic, Conn. We finished building and moved into our new home and celebrated 11 years of marriage. James is now teaching physics at Waterford High School and coaching spring track. I separated from Pfizer after 13 years and am now pursuing a degree in nursing. Our girls, Amelia and Bethany, enjoyed the family's three-week vacation to Disney World."

Paul English '98 spoke on a panel at EMC World 2011 on Big Data Storage. He will co-chair the 2012 Cascadia IT Conference.

Romeo Gervais '98, '99 (FPE) has accepted a new position with the Boise Fire Department as deputy chief fire marshal.

Adam Fowler '98 , '99 (MS BBT) started a new job in April as director of manufacturing development at Santarus, a biopharmaceutical company in San Diego. Adam and his wife, Nancy (Tryder), celebrated their fifth wedding anniversary in August and are expecting their first child (a boy) in January 2012.

Janel Lanphere '98 married Tony Peterson in 2009. "I was lucky enough to gain not only a husband but two stepchildren, as well," she writes. Outside of her work as a medical device engineer at W. L. Gore & Assoc., her main passion is competing in races such as the Gore-Tex Trans Rockies RUN3, a three-day stage race held in Colorado. She also serves as an executive board member of Team Run Flagstaff and coaches beginners in the Step Into Running program.

Stephen Fong '98 was promoted with tenure to associate professor in the Chemical and Life Science Engineering Department at Virginia Commonwealth University in Richmond, where he has taught since 2005. He also serves as associate department chair.

Keith Pray '98 says that his family is expecting a baby girl soon; they also have two little boys. He is principal software engineer at BAE Systems and an adjunct instructor in the CS department at WPI.

Jill (Baryza) LeFevre '98 and her husband, Gene, welcomed their third child in May 2010. Ava keeps her mom on her toes while giving her big sister and brother plenty of entertainment.

Jeevan Ramapriya '98 writes, "In September I left politics and public service and returned to corporate America as a vice president and associate director of regulatory industry, and government affairs at State Street Corp. in Boston."

Amy Sinyel '98 is a senior project manager at Recommind Inc., an enterprise search and e-discovery software provider.

Gregory Murphy '98 writes, "I'm currently a practicing emergency room physician in western Mass., and have a 7-month-old daughter!"

David Srebnick '98 reports a career change. "In 2003 I left DEC (which had been acquired by Hewlett-Packard) to pursue a career in teaching. I quickly found a job as an 8th-grade math teacher at the Solomon Schechter Day School in Newton, Mass. It's a great career and I'm glad I made the move."

Nilufer Saltuk Soucek '98 says she's excited to be involved with Dress for Success Denver's fundraising efforts. "My company, Splendor for Your Guests, donates a portion of sales to this fabulous women's organization. Splendor rents and sells shawls, umbrellas, and parasols for weddings, events, and corporate gifts, so it fits perfectly that we partner with a clothing-related non-profit."

Mike Stark '98 is a sergeant with the Allenstown, N.H., Police Department and spends his free time with his children, Jon and Abigail.

Steve Dupree '99 and his wife, Natalie, took their 1-year-old daughter, Sarah, to Australia, where she got her first passport stamp.

Jessica (Hamel) '99 and **Liam Kelly '98** welcomed the birth of their first child, Gavin Liam, in September 2009. "He is an extremely active child and proving to be very technically savvy!" they report. The family moved to Buffalo, N.Y., for Liam's new job.

Janet Burge '99 (MS CS), '05 (PhD) was awarded tenure and promoted to associate professor of computer science and software engineering at Miami University.

Jennifer (Marinello) '00 and **Joshua Parks '01** are expecting baby number two in February 2012. Joshua is a senior engineer at Lockheed Martin in Moorestown, N.J., and Jennifer works part time as an educational consultant, yoga instructor, and childbirth educator. Their son, Jacob, turned 2 in March.

Ryan Metivier '00 writes from Nashua, N.H., "I am so glad that **Ben Newton '00** and his family moved to town!"

Seth Flagg '00 writes, "My wife (Ilse Levin) and I recently had our first child, Alistair Seraphin."

Brett Fricke '00 married Anne Ryan in 2010. They live in Plymouth, Minn.

Kevin Amorin '00 announces the birth of Zachary, who joins his brother, Jacob, as potential future Engineers. Kevin is director of technology at Nexage and an adjunct professor of information assurance at Northeastern University.

Malcolm Beaulieu '00 says, "This summer I launched the beta version of a social media podcast site, weHEARus.com."

Stefano Ceriana '00 will present a paper, "What Results Are Possible in Hydraulic Modeling? A Case Study of Water Distribution Modeling," in Citrus County, at the Florida Section AWWA Conference in Orlando, Fla. The paper is based on a project that modeled the entire water distribution network of Citrus County, Fla. He a project manager with Hoyle, Tanner.

Scott Ammidown '00 married Colleen Cunningham in May 2010. In attendance were classmates **Seth Sienkiewicz**, **Justin Barber**, **Joe Malboeuf**, **Matt Lavoie**, **Justin Woodfall**, and **Adam Bensle**, along with **Dennis Magnifico '01** and **Tim Fox '03**. Their daughter, Olivia, was born last February. The family lives in Westborough, Mass. Scott is a senior program manager at EMC.

Beth Schweinsberg '00 writes, "I've joined the Incident Response Team at Google Inc. This distinguished group performs digital forensics on the Google networks to find and eradicate cybercrime."

19 Bryan LeBlanc '01 relocated from Worcester County to Tampa, Fla., in fall 2010 to pursue a new role as business development director for a small defense company. He writes, "I have three beautiful children (two boys and, finally, a girl) with the college sweetheart I met in Founders Hall, Danielle (Williams). I also own and operate a small business helping other small businesses win government contracts (winningcomm.com). I miss my WPI baseball glory days, but now enjoy being a Little League head coach for my sons."

Jim '00 and **Dina (Carreiro) Konz '01** celebrated the birth of their third child, Logan James, in February 2011. Preceding him are sister Lilian and brother Colby. "We've stayed in the area (Webster, Mass.) and I'm still working for the company I did my co-op with in 1999 (formerly Shareholder.com, now NASDAQ OMX)."

Ken Gagne '01 writes, "After receiving my master's degree in publishing from Emerson College, I spent the summer in Denver, where I took in a Rockies game with WPI alumni. I live in Framingham, Mass., where I am a senior associate online editor for Computerworld.com. By night, I host the Open Apple podcast."

20 Kevin Dickert '01 got a true buzz at the One Mission Kid's Cancer Buzz-Off held at Gillette Stadium in July.

▶20

The "Buzzing for Quinn" team was formed in honor of his infant daughter Quinn, who has been receiving treatment for acute myeloid leukemia since she was two weeks old. The 15-member team, which also included Quinn's uncle **Greg Walker '97 (PhD)** and **Brad Waterson '94**, had their heads shaved to benefit programs at Children's Hospital Boston and to raise awareness of pediatric cancer.

Nick Nigro '01 climbed Mount Kilimanjaro in June to raise money for a wounded veterans organization. He works for an environmental think tank on energy and climate changes issues in Washington, D.C.

Jen (Waite) Blair '01 started consulting from home as a full-time Salesforce.com CRM architect and developer. She lives in Worcester with her husband, Jamie, and their 2-year-old Akita, Jasmine.

Frederick Tan '01 received a PhD in biology from Johns Hopkins University in 2008 and is now a postdoctoral fellow at the University of California, Berkeley.

Jessica (Hoepf) '01 and **Jeff Costa '02** welcomed a son, Nicholas, into the world in August 2010. They live in Kensington, N.H.

Sean Toomey '01 (MS FPE) was named the new deputy fire chief and fire marshal of Concord, N.H.

Greg Coppenrath '01 married Valerie Azzopardi in September 2010. They reside in Clinton, Mass. Greg works for Analog Devices.

Matthew Munyon '01 writes, "I married Amber Vayo (of Worcester State and Clark University) in 2009. We spent two years in Fairfax, Va., and enjoyed visiting the Smithsonian museums, memorials, and other sites and events (such as participating in the Jon Stewart "Rally to Restore Sanity"). I started modifying effect pedals for electric guitars and recently built a tube amplifier. This new hobby has started me down the path of guitar amplifier repair and construction, and I hope to start a small business making hand-built boutique guitar amplifiers."

▶21

Johanna (Tenczar) '01 and **Matthew Shaw '00** welcomed their first child, Brechin Jacob, on May 5, 2010. "He is now the world's cutest 14-month-old in glasses, and is showing that he is likely a future engineer," she writes.

Nathan Smith '01 currently lives in Worcester with his wife, Anika, daughter Inez (18 months), and their black lab, Thor. He is a senior design engineer at Anderson Power Products in Sterling, Mass.

Alex Knapp '01 writes a science and technology blog for *Forbes* called "Robot Overlords," focusing on cutting-edge research and how it impacts the culture at large. Check it out at blogs.forbes.com/alexknapp.

Amanda (Kight) and **Paul Muller '01** reside in Alexandria, Va., with their dog, Sadie, and their cat, Curie. Paul was recently promoted to the rank of major in the U.S. Air Force. In July he relinquished command of Detachment 45 of the Air Force Technical Applications Center at Buckley AFB, Colo., in order to take a position at Air Force Headquarters at Bolling AFB, Washington, D.C. Amanda was accepted to the Systems Engineering Associates program at Northrop Grumman.

Jennifer (Brandl) Franco '01 recently welcomed her son, Evan Franco, born January 2011. She also has a 2-year-old daughter, Charlotte.

Nick Williams '02, '04 (MS FPE) recently relocated to the East Coast and is living in Keene, N.H., after having lived in Macau (SAR), China, and Chicago over the past four years. He is now the corporate facilities senior manager of fire protection at C&S Wholesale Grocers. Nick and Jenny have a 14-month-old daughter, Caitlyn, and a new baby girl, Maiya, who was welcomed into the world Sept. 24, 2011.

Brian Zahnstecher '02 married Caryn Ploszay in 2009. He is a Cisco technical global account manager for Emerson Network Power, San Jose, Calif.

Bai Lan Zhu '02 has been an Air Force officer since graduation. From Tyndall AFB, he writes, "I've been blessed enough to do a variety of jobs, including aircraft avionics program management, early warning radar enhancement, spacelift operations, and missile testing. I've been selected to attend intermediate professional military education, and I'm hoping to attend the Naval Command and Staff College next."

Shauna (Malone) Onofrey '02 and her husband, Kurt, announce the arrival of their first child, Stephen James, born Jan. 17, 2011. She says, "We are enjoying the addition to our burgeoning family in Randolph, Mass."

Bassam Esa '02 bought a house in Worcester only five minutes walking distance from WPI. He and his wife, Nada, had their first baby, Katia, on Jan. 5, 2011.

Jim '02 and **Sarah (Bellfy) Koniers '04** recently relocated to southern New Hampshire with their daughter, Theresa. Jim accepted a position as a senior mechanical engineer at Azure Dynamics in Woburn, Mass., working on hybrid and electric vehicle component design.

▶21 **Lauren Abrahamsen '02** graduated with a DVM from Colorado State University's College of Veterinary Medi-

▶22

cine and Biomedical Sciences in May. "I currently work for the USDA Center for Epidemiology and Animal Health," she says, "but I'm looking to pursue a career practicing mixed animal medicine."

Damon Blanchette '02 writes, "I've worked at Smith College in Northampton, Mass., almost since graduation. My son just turned 7. I'm now back at WPI very part-time, working on my master's in computer science (focusing on real-time graphics), and I should be done when my thesis is complete by the end of 2011."

Nick Sherwood '02 writes, "I just finished my PhD this summer at Cornell University, working on silicon nanophotonics for use in future optical microprocessor interconnect networks. It was fun, cutting-edge work. I'm now at a start-up called Tornado Medical Systems in Ithaca, N.Y., using my optics knowledge to make tiny medical devices. I took a month-long tour of the north of Spain—I can summarize the trip as warm and delicious. Anyway, life is good, WPI, and I think of you often."

Frances-Feliz Zgambo '02 married Thomas Kearns Feb. 14, 2011. She is pursuing her MS in quality management at the National Graduate School in Falmouth, Mass. They currently reside in New Bedford with their two children, Thomas and Jazmin.

Glenn Donovan '02 writes, "My wife, Erin, and I welcomed our second child, Liam, in August. His sister, Ellie, celebrated her second birthday in April. I have been working at the Naval Undersea Warfare Center in Newport, R.I., since June 2002. This past year I was honored to receive the Arthur S. Flemming Award for excellence in federal service in the category of Applied Science, Engineering, and Mathematics."

Heather (Maisey) Buschman '02 was promoted to scientific communications manager at Sanford-Burnham Medical Research Institute in La Jolla, Calif., where she edits the institute's website and blog.

Jayne McAlary '02 married Ryan Swiercinsky July 16, 2010, in Aruba, where they met on vacation in 2004. Engineers celebrating with them in paradise were classmates **Tiffany Howland**, **Elena (Kozulin) Gaudette**, **Brian Blackwell**, and **Julie (Bolduc) Blackwell**, along with **Jackie (Maiorano) Caceci '03**, **Cati Knab '03**, **Jason Gaudette '03** and **Jennifer (Patoulidis) Flynn '01**.

▶22 **Kerri (Hufnagle)** and **Michael Wojcik '02** announce the birth of Matthew Frazier on July 14, 2011. They live in Coventry, Conn. Mike is Northeast regional sales manager for MECO Biopharmaceutical. Kerri is staff engineer in the Propulsion Systems Analysis group at Pratt & Whitney.

Elaine (Warner) Sanfillppo '02 recently launched her new business, AdopTee's, which designs and sells pet-themed T-shirts to raise money for animal rescue and welfare groups. "In just under 10 weeks, we've donated over $1,000 to the cause," she says. Find out more at adopteesonline.com.

Patrick Baxter '03 writes, "My girlfriend and I recently traveled to Costa Rica to attend her brother's wedding in March. It was my first experience visiting a Central or South American country. The weather was a welcome break from our horrible winter! Our hotel was located just across the street from the white sand at Flamingo Beach. Of course, in the afternoons the swim-up bar in our hotel pool was more attractive than the beach."

Ari Copeland '03 received the Allen B. Roberts Award from the F1 Section of the American Water Works Association for his outstanding volunteer work in youth education for the water profession. Previously a civil engineer with Black & Veatch Corp. in Florida, he recently accepted a position with the AWWA in Denver, where he will be working under the Technical and Education Council supporting WQTC and ACE conferences.

Andrew Keefe '03 was named chief engineer of BPG Motors, a start-up in Cambridge, Mass. The company's hybrid electric dual-tracked military vehicle was featured on engadget.com, and AOL Autos Transloic video channel did a segment on BPG's self-balancing motorbike.

Sarah (Linderme) Xavier '03 and her husband, Jeff, welcomed their first child, Nathaniel Bradford, April 8, 2011.

Chris Gordon '03 has worked for the Missile Defense Agency since 2003 as a contractor with SAIC, along with occasional support to the missile intelligence agencies. For the past two years, he has served as lead contractor for the Flight Test Design and Planning division. He received an MS in systems engineering from the University of Alabama-Huntsville in May 2010. Chris lives in Huntsville with his wife (high school sweetheart), Jess; son, Gabe; and daughter, Julia.

Darren Torpey '04 and **Vickie Wu '03** were married Sept. 10, 2011, in Natick, Mass. Vickie went back to school to start a career in food service. She's a cook for Aramark and works at Biogen's Weston, Mass., office. Darren is a web developer for Punchbowl.com, a consumer-facing start-up in Framingham. He also runs Boston Game Jams, a community of professional and amateur DIY game developers who gather on weekends to collaboratively design and construct original video- and board games from start to finish.

Erica Bartos '04 started a new job teaching physics and math at a high school in Charlottesville, Va. This was her third summer working for Sail Caribbean, a program for middle school through college students to learn to sail and scuba dive, study marine biology, and do community service in the British Virgin and Leeward islands.

Andrew Smith '04 recently changed jobs—from software engineer at New England Baptist Hospital in Boston, to project manager, applications, for the UMass Memorial Lab Information Systems department in Worcester.

Greg Kronenberger '04 changed jobs in 2010 and is now a member of Booz & Co. He recently worked the post-merger integration of a transmission service operator, supported a pension insurance agency during an IT transformation, and is now helping a client in the consumer and retail space in transforming its core processes and IT.

Madeline Sola '04 was a finalist for the Women of Innovation Award for Community Innovation and Leadership. She is a structural engineer in the Fatigue & Fracture Mechanics Group at Pratt & Whitney.

Colleen Shaver '04 says, "I bought my first house in October 2010 in Worcester. I also rescued two kittens (Fonzie and Joanie) to join me there.

Christina Sunshine (Byrne) '04 and **Christopher Wall '06** welcomed their daughter, Kathryn Mackenzie, into the world on April 3, 2011.

Meaghan and **Jacob Castiglione '04** welcomed "beautiful Finola Elizabeth" into the world in September 2011.

Kat Rivard '04 and **Dave Belliveau '04** are pleased to announce that they are engaged! They are planning a wedding in spring 2012. They bought a house this year in Hudson, Mass., where they live with their two dogs and eight chickens.

Yvonne Mok Green '04 writes, "First son born: Kiran Alexander on March 18, 2011."

Tasha (Andrade) '04 and **Josh Clark '04** announce the arrival of their son, Dylan Jacob, on Jan. 9, 2011. They live in West Roxbury, Mass.

Jessica McAlear '04 hiked 750 miles of the Appalachian Trail in her six weeks off this past summer and hopes to finish the trail next summer. She's in her third year working at St. Lawrence University in the north country of New York, coaching the crew team and teaching in its First Year Program. When not teaching or hiking, she volunteers as a referee at national rowing events.

Nicole McMahon Orrell '04 was recently promoted to global manager of product performance and safety at KARL STORZ Endoskope. Her husband, **Mike Orrell '04**, is a senior product design engineer for Curtis Industries. "Our son, Jack (Class of 2030?), wants to go to college when he is 'big and strong like his daddy.'"

Frank Gerratana '04 is practicing intellectual property law at Fish & Richardson in Boston.

Jennifer Flynn '04 writes, "Last year I moved to San Diego. Since then I've been working as a software engineer and scrummaster for Localeze."

Matt Gage '04 writes, "I'm living the dream in San Diego, working for a media technology company creating web solutions for an AT&T contract (their U-verse Online website). I've also been dating a WPI graduate, **Jenn Flynn '04**, who lives out here."

Teresa Cheromcha '04 is currently employed by the Colorado Bureau of Investigation as a criminalist II agent (DNA analyst) in Grand Junction. She received her master's in forensic molecular biology from George Washington University in 2007 and previously worked for the Armed Forces DNA Identification Laboratory in Maryland.

Julie Porcaro '04 left National Grid earlier this year after six years as a senior engineer. She has joined CHA Consulting in its Concord, Mass., office, working with **Jim Howe '77**

Alison Schafer Salomone '04 and her husband teach math and computer science at Bridgewater State University. She also runs a robotics program for high school students and actively promotes getting more females into engineering. "I have made a half-dozen trips to backpack across Europe. We've settled down in a house in historic Plymouth, Mass., and love our life!"

Lindsey (Tetreault) Waitt '05 writes, "I was married on July 21 in Disney World. My husband is in the Army, stationed in South Korea, so I have moved there with him for a year. I am on an educational leave of absence from Raytheon to pursue a master's degree in aerospace engineering from Purdue University, taking all my classes online while living in Korea."

Jessica (Reidel) Sarcione '05 and her husband, David, are proud to announce the birth of their first child, Cameron David, on Sept. 8, 2011. She says, "I work from home full time as a patent examiner in biomedical art for the U.S. Patent and Trademark Office. Our (hopefully growing!) family lives in Manassas, Va., but we do hope to return to Massachusetts soon!"

Molly Nawrath '05 graduated from nursing school in May, and passed her RN boards in June. She is now a registered nurse at Southwestern Vermont Medical Center on the Telemetry Unit. To celebrate, she bought a new 2012 Hyundai Elantra. Her dog, Rusty, enjoys riding in it with the windows down.

Jay Kramarczyk '05, '06 (MS FPE) says, "I am living in Littleton, Colo., working as a forensic fire protection engineer/fire investigator with Phoenix Investigations & Engineering. The little bit of free time I have I spend volunteering at my church, diving in the Denver aquarium, and enjoying Colorado. I hope everyone else is enjoying life now that we're (supposed to be) all grown up."

Tuan Nguyen '05 writes, "I am currently a senior manufacturing tech I at Abbott Bioresearch Center in Worcester. I am involved in the downstream manufacturing of the drug Humira, Abbott's most successful product in the company's history."

Aaron Vandesteen '05 says, "The birth of Theodore Miles Vandesteen to Aaron and Jacqueline Vandesteen occured on Feb. 26, 2011. He was born on the same day of the month that both his mother and father were born."

Sid Rupani '05 writes, "In January, after completing my PhD at MIT, I moved down to Miami to start a job with DHL. Miami has been great and I'm loving it here so far!"

Daniel Boothe '05 recently joined Bose Corp. in Framingham, Mass., working on acoustic design of new products for the Home Entertainment Division.

Jaime (Grouf) '05 and **Andrew Day '05** were married in October 2008 and purchased their first home in July 2009. She works for Genzyme in Framingham, Mass., and he works for Raytheon in Andover. They write, "Learning as we go, we've been working very hard to update our home without contractor help. Our first major project included the total replacement of the roof within the first three months. Obvious lessons learned: (1) replacing a roof is a project worth being contracted, and (2) it's not a project to be completed by those afraid of heights!" Their fun vacations have included Mexico, the Bahamas, and camping and skiing in New England.

Chris Aniszczyk '05 writes, "In terms of work, I am managing Twitter's open source program. In terms of other things, I've traveled 314,567 miles and been to 69 cities and 17 countries, according to Tripit."

Vonda Bui '05 writes, "I switched companies in April 2011 and am now an associate in the Retirement, Risk & Finance department at Mercer. This past July, I visited Chicago and had a WPI mini-reunion with classmates **Adam Epstein**, **William Herbert**, and **Jocelyn Lally**, along with **Laura Amodeo '06**, **Michael Terranova '06**. We had a great time catching up in the Windy City!"

Xiaohe Hu '05 writes, "Aiming to become the best baker with my mathematical genius."

Lauren Corsetto '05 and Joshua Young were married in New Jersey on Oct. 10, 2010. **Melissa O'Dea '06** was one of the bridesmaids; **Stephen O'Dea '06** and **Carlos Goller '02** were also in attendance. The newlyweds currently reside in Montclair, N.J.

James Ehnstrom '05 writes, "After graduation I worked in a clinical setting and got my MS at Northeastern. I now work for Cubist Pharmaceuticals as an analytical chemist. I am getting married this October, then we'll be on our way to Aruba for our honeymoon."

Stephen Gauntt '05 writes, "After WPI I got my master's degree at TAMU. I've spent the last four years working for a major oil services company designing drilling riser equipment. I also got married and bought a house."

Greg Krane '05 became engaged to Farleigh Layfield in the spring of 2011. He says, "We met as students in veterinary school and have been dating since 2007. We're very excited about our August 2012 wedding in Newport, R.I." Greg recently relocated from the Philadelphia area to join the Park Ridge (N.J.) Animal Hospital as an associate veterinarian. "I look forward to meeting WPI alumni in the NYC metro area."

Brian O'Donnell '05 is starting a PhD program in electrical engineering at Arizona State University.

Peter Lohrmann '05 ran in the Pike's Peak Ascent, a 13.32-mile race that climbs to a 14,115-ft. elevation.

Adam Rogers '05, '07 (MS FPE) safeguards the nation's treasures as a fire protection engineer at the Smithsonian Institution. He works with several WPI FPE alums to protect buildings and collections, and to ensure the health and safety of visitors, staff, and volunteers.

Jamie Mohr '06 and **Tom Skiba '00** were married in August 2010. The celebration brought together many WPI alumni, including classmates **William Johnston**, **Paolo Piselli, Lynn Reni, Justin Zipkin**, and **Gary Hamilton;** also maid-of-honor **Stacey Mohr '08**, best man **Rob Skiba '02**, **Jesse Marzullo '02**, **Neil Whitehouse '05**, **Lauren Stolzar '05**, **Elizabeth (Hansen) Bulger '05**, **Jodi Lowell '08**, and **Jenna Balestrini '09**.

Jim Norton '06 earned his Connecticut PE license. A mechanical engineer for BVH Integrated Services, and a LEED-accredited professional, Jim specializes in the design of HVAC components for healthcare and higher education facilities.

Chris Werner '06 writes to say, "In January I moved from Manchester, N.H., to San Jose, Calif., and began a new job at Apple as a product design engineer. In December 2009 I became engaged to Heather Senecal—wedding plans are under way!"

Amanda (Gray) Bullerwell '06 moved back to New England from Seattle last year to work for Labsphere.

Philip Ng '06 writes, "I've been working at VT MÄK for two years on simulation software and living in Boston since graduation. I have traveled around North America for various reasons but still love it here. I have met so many great people and done and learned so much—all thanks to WPI!"

▶23 **Erin Ringer '06** and **Matthew Regan '06** were married March 21, 2011, in Maui. "A bunch of Tech alumni celebrated with us in Westford, Mass., in July. We live in Lebanon, N.J."

Tofer Carlson '06, '11 (MME) writes, "I graduated (again!) in May with a master of mathematics for educators degree. I'm currently teaching high school math in Worcester, writing plays, and working on organizing a theatre company."

Aaron Bergeron '06 says, "I went to the Bonnaroo Music and Arts Festival in Manchester, Tenn., this past June—four days of music, sun, and dust!"

Max Stinehour '06 sends this update, "After finishing my tour of duty as a surface warfare officer as a Navy lieutenant, I have begun my studies toward a doctor of pharmacy degree from the Medical College of Virginia at VCU."

Chris Deraleau '06 experienced the arrival of his first son, Theodore, on Sept. 2, 2011. "He joins his sisters, Charlotte and Lucille, who, despite being so young, are extremely well traveled, having been to Hawaii (twice) and Aruba, along with several trips to visit to their grandparents in Las Vegas and Massachusetts."

Geoffrey Batstone '07 reports that he has passed the FE and is now working on his PE. "After a layoff from a small company, I found a better job in the transmission engineering department of National Grid. My degree was definitely invaluable in getting my foot in the door as more than half of my department is WPI graduates! On the romantic front, I've been dating a beautiful girl named Meghan for almost a year now. She is incredible and we are really happy together. I have a feeling we'll be getting engaged soon."

Yekaterina Kazinik-Jorgji '07 says, "I got married two years ago to my high school sweetheart. Traveled to the Taj Mahal, going to China soon for work, and just trying to enjoy life. Working in the power industry and training in Six Sigma."

▶24 **Krista (Smith) '07** and **Matthew Shaw '06** were married Aug. 15, 2010, in Brewster, Mass. The wedding party included, from left, **Meghan Kelly '07, Garon Clements '08, Lesley (Anderson) DeSantis '06,** Christopher Shaw, Amanda Smith, **William Stanney '09, Kelly Osberg '07, and Mike Tiu '08.**

Keeley Stevens '07 writes, "I received my master's

degree in physics from North Carolina State in 2009 and am pursuing my PhD in physics, focusing on tribological characterization of percolated lead films above and below the superconducting transition, with an expected graduation in 2012. On a less scientific note, I became a Yoga Alliance RYT-200 certified yoga instructor. In my spare time (left over from superconductors and sun salutations), I dance West Coast Swing and make jam out of as much of the wonderful southern produce as I can. (Get it? 'Can?' I crack myself up.)"

▶25 **Marc Schultz '07** recently completed the Juvenile Diabetes (bicycle) Ride-to-Cure in Burlington, Vt.

John Scimone '07 says, "Great news! I just got engaged to Faith Henderson—I met her while at WPI six years ago. No date is set for the wedding yet, but it will probably be on Cape Cod in a couple years. We're very excited."

Kris Nigro '07 says, "I'm currently working as a senior project engineer for McCarthy Building Companies on a hospital complex replacement project in Oakland, Calif. Also pursuing an MSODL degree through WPI's new blended learning format."

Sanjayan Manivannan '07 writes, "I recently graduated from the MBA program at Harvard. I am re-entering the work force as an associate at McKinsey & Company in their Boston office. Recent travels have taken me to Denver, Salt Lake City, London, and Venice."

Sam Feller '07 says, "I recently launched a new website, www.awkwardengineer.com." [See page 86.]

James Phelan '07 tells us, "I got married in July 2010. I live in Los Angeles and have worked at ExxonMobil since graduation as a project development engineer. I'm also attending law school part time."

Jeffrey Sanders '07 is a fourth-year doctoral student in structural biology and molecular pharmacology at Thomas Jefferson Medical College in Philadelphia and is currently doing research for the DOD.

Hillary Perkins '07 tells us that she found work as a research assistant at BU's Medical School in the pathology department, "with the help of WPI's CDC Jobfinder site. I celebrated my one-year anniversary there in August, and intend to start working toward my MS in pathology in the near future."

▶26 **Kaitlyn Anderson '08** and **Ryan Adams '10** became engaged in June and are excited to be planning a fall 2012 wedding. Kaitlyn is a product manager for ConforMI in Burlington, Mass., and Ryan is an operational excellence specialist for Shire HGT in Lexington."

Emily Potter '08 writes, "After graduating, I bought a house with my fiancé and started my first job at a start-up called Soapstone Networks. It was a learning experience, but unfortunately the company went under in 2009. Later that year I started working at SolidWorks as a software engineer. I have been in their API group for almost two years now, and I love the company. After a September wedding we will honeymoon in Hawaii."

Theodore McDonald '08 writes, "At WPI I worked on a small-scale hybrid rocket engine for my MQP. I now hold a full-time job as a propulsion test engineer working on the Dragon Propulsion System for Space Exploration Technologies in McGregor, Texas. Though some say I've 'grown up,' I still tinker with amateur rocket engines at home."

▶27 **Ryan Graves '08** received his Wings of Gold for completion of the Naval Aviation program, as well as a Top Hook award for his top grades. He is now stationed in Virginia Beach, where he will continue training on the F/A Super Hornet before being made available for worldwide deployment as a member of a carrier strike group.

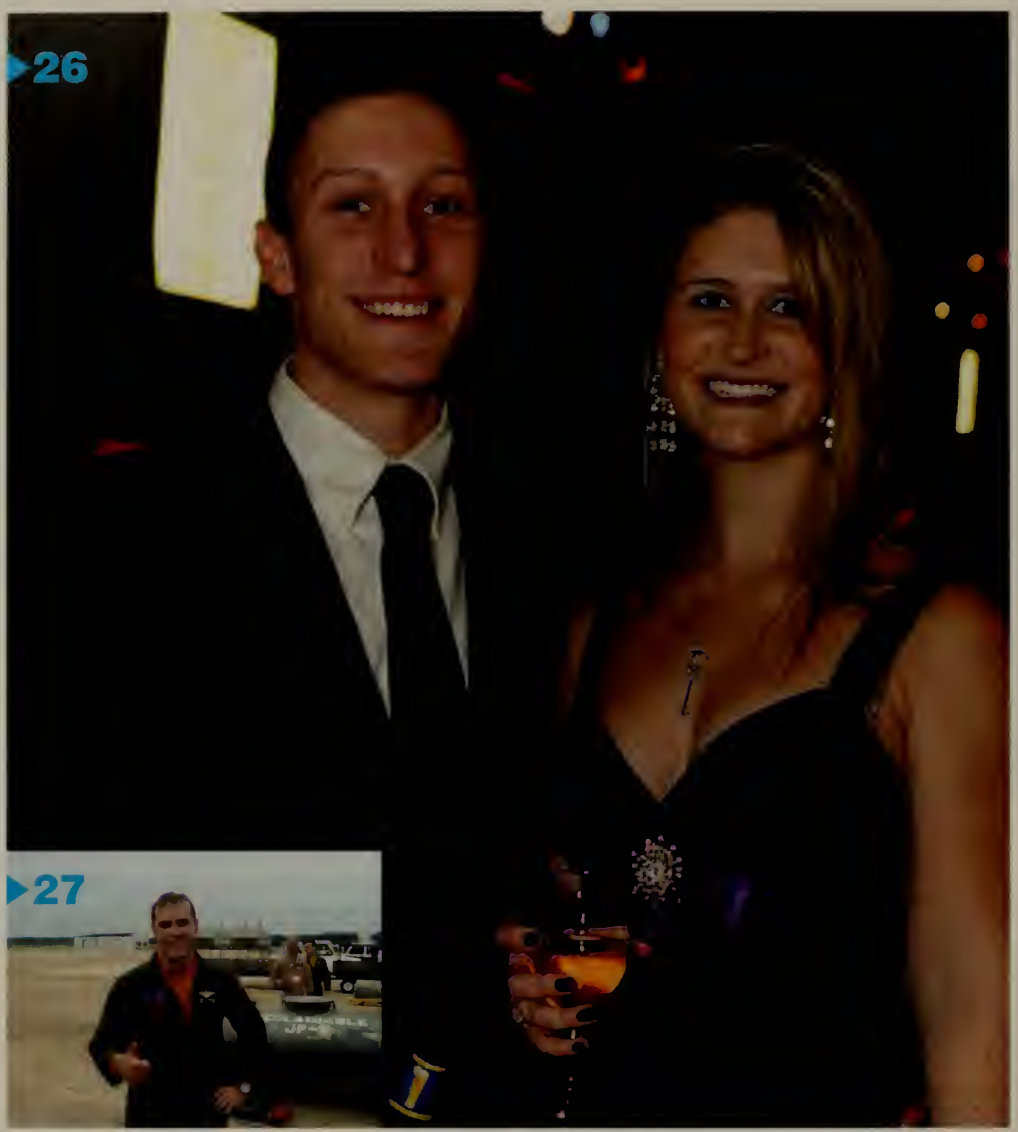
Jessica Coelho '08 writes, "I've moved to Hartford and have worked for MDC, a water and sewer company, for three years. This July I was able to travel to Sao Miguel in the Azores. This island is where my great-grandparents are from and it was my first time getting to see it."

Adam Schwartz '08 works for Rolf Jensen and Assoc. in San Diego. He recently went to Washington, D.C., to celebrate his grandmother's 100th birthday. "What an epic event! She still does everything but drive and still has a great sense of humor. About 50 family members got together for the event, including my brother (who also graduated from WPI with an ECE degree in 2010). With San Diego's plethora of musicians and the intoxicating weather, avoiding moving back to the East Coast is high on my priority list!"

Tiffany Walls '08 says she became engaged to her boyfriend of three years, Jason Smith, in August. "I also celebrated the third year of working as a medical technologist for Athena Diagnostics and the one-year anniversary of receiving our boxer puppy, Roscoe."

Celeste Fay '08 writes, "I moved from an A/E firm doing run-of-the mill (no pun intended!) hydropower consulting, to the Alden Research Lab in Holden, Mass., where I can rub shoulders with the real hydropower minds."

Kyle Gauthier '08 says, "I graduated from U.S. Air Force pilot training and earned my wings. I'm now stationed at Ramstein AFB in Germany, flying the C-130J in support of U.S. forces in Europe and Africa."



Jennifer Hosker '08 is the new manufacturing and quality engineer for Burndy's Tooling Group in Littleton, N.H.

Kaushal Shrestha '08 says he's been with the same company for three years now. "Have two dogs; both are beautiful American Eskimo spitz. I am very excited to be going back home to Nepal soon. My sister is now a sophomore at WPI."

Kunal Atigre '08 says, "I have been working as a partner in the heavy engineering and jobbing industry. I am getting good exposure over here in Kolhapur, India. Looking forward to expanding the business."

Erica Grygorcewicz '08 confesses, "Never thought there'd be a day, but I have made my way back to Worcester! After a few years in Boston, I was ready for a 'smaller' city and something closer to my friends and family. I've been playing rugby (Go, Shamrocks!), working for MassDOT, and loving life. Tried to re-live my WPI party life with classmates **Katrina Kucher** and **Elise McDevitt** down in Cancun, but we realized we just can't party like we used to!"

Ian Woloschin '08 writes, "While not as exciting as a fully automated house (to WPI folks, I mean), I got married on Sept. 4 to Nora Basile at her alma mater, the U.S. Coast Guard Academy in New London, Conn.

Keith Ferry '08 says, "I'm working for Avery Dennison, starting a specialty vehicle decal company, and investing in real estate part time."

Vannak Chhay '08 says, "I traveled to Cambodia to revisit my roots, went to the Bahamas to get some R&R, and am now back in Worcester working at Blue Sky Biotech."

Whitney Thurrott '08 reports, "Since graduation I've been teaching high school science in Hartford, Conn. In 2010 I purchased a home and have been slowly but surely making improvements to it. And I've started a photography business with a partner."

Armen Dilsizian '08 writes, "I traveled to Switzerland with my girlfriend and climbed and skied the Alps, staying in a small mountain village. The only access to and from the village was by ski lift. (No roads, so no cars.) We then went to Rome to visit the Colosseum and other sites."

Anthony DiOrio '08 says his travels have taken him to Mexico, Hong Kong, Shanghai, Malaysia, California, and places closer to home. "I ran in the Harpoon 5-miler in May. I was a sprinter at WPI, so long distance has been a wonderful, new challenge for me. I've also been playing volleyball, basketball, and softball competitively. Cycling is my next target. Looking forward to starting my MBA soon."

Amanda Olore '08 reports, "I recently shifted career paths away from my degree in actuarial mathematics to accept a new opportunity at Aetna Inc., and it has been a great experience thus far!"

Mary Kate Toomey '08 is a field hockey official for middle- and high schools in metro Boston. She's also vice president of the Alpha Gamma Delta Greater Boston Alumnae Club. "I was invited by WPI's Camp REACH as a 'Distinguished Alum' of the program to speak at the first-ever Career Explorations Dinner last July."

Matt Schulze '09 sends this update: "I started at Bristol-Myers Squibb, preparing its Devens site for performance qualification. I put that experience to good use when I accepted the business systems analyst position at Genzyme in September of last year. I actually work for **Chuck Lemire '02**, who has been a joy to work for. I've also been elected president/chairman of the Sigma Alpha Epsilon WPI Housing Corporation. We presented **Donald Peterson '71** with the Merit Key Award at his 30th Reunion."

Krista Dietz '09 tells us, "I decided to relocate back to Massachusetts, so I moved to Boston, where I now work at Woodard & Curran. In my spare time, I've been performing musical theatre—most recently "Rent" at The Footlight Club in Jamaica Plain. I'm engaged to **Alexander Forti '09**, who proposed marriage at the Higgins House gardens, accompanied by Gompei, the goat, and many close friends. (Unfortunately, I was unable to steal the Goat's Head!) We plan to get married in the summer of 2013."

Gabriella Serrati '09 says, "I've been living in Houston, working for ExxonMobil. There is a pretty large population of WPI alumni down here and we are attempting to start a mini Alumni Chapter."

Francis Song '09 was recently promoted to first lieutenant in the USAF and has been awarded Air Battle Manager wings after completing NATO AWACS training. "I'm currently serving as an air weapons officer with Squadron 2, based in Geilenkirchen, Germany. I would like to say hello to all my fellow brothers and sisters serving in the U.S. military, especially those who graduated in 2009."

Jason Hu '09 writes, "After a 'short' vacation to New Orleans and Chicago, I finally settled in my new job at a biomedical start-up, where I enjoying working on a variety of products and making decisions that matter. Really am appreciating my WPI experience. Who knew those late MQP nights and overnighter thesis 'camp' actually taught me so much?"

Katie Bomba '09 says, "I received my master's in genetic counseling from Arcadia University in May, and accepted a job at Dartmouth-Hitchcock Medical Center, where I am a practicing genetic counselor."

Don Havener '09 was a finalist in the Launch L-A entrepreneurial contest for his "Havener Hot Plate" ski bindings, designed to absorb impact to reduce knee injuries, as well as prevent runaway skis.

Eric Sheridan '09 writes, "Since graduation I have worked at Bose Corp. as an engineering project manager, for which my blended undergrad IE curriculum prepared me well. I've come back for more WPI education and am currently enrolled in the MBA program; I plan to graduate in May 2012. I live Nashua, N.H., with my dog, Charlie."

Jessica LaGoy '09 lives in the Baltimore area, where she works as a technical program manager for EMC Corp. and is pursuing an MS in cyber security. "I have two dogs, Sasha and Ares, and spend my time hiking with them, as well as training in mixed martial arts."

Kevin Jillson '09 ran the 2011 Boston Marathon, finishing 46th overall—only his third marathon ever (first Boston). Kevin finished 40th among the men, with a personal record time of 2:25:52. [Editor's Note: Kevin average 5:34 per mile for 26 miles; this is no simple feat.]

David Willens '09, a project engineer at Kinefac Corp., is developing new thread-rolling and metal-forming technologies.

Eric DeStefano '09 writes, "I've been living in Groton, Conn., for the past year as an engineering analyst for Electric Boat. I also recently got engaged—a June 2012 wedding is on the way. Lots of planning to do!"

Amanda Young '09 tells us, "I've been working for ExxonMobil in its Baton Rouge chemical plant for the past two years, in the polymers department."

Kevin Cox '08, '09 (MS FPE) writes, "Since graduating I've received multiple job offers in the field of fire protection. Thanks to WPI! With a steady income, I've been able to follow my motto of work hard, play hard, which started immediately after graduation, when a group of 14 WPI classmates and I took a vacation cruise to Bermuda for a weeklong celebration. Keep up the good work, WPI!"

Scott Gary '09 says, "I started a new job in May with a great company that includes education benefits, which I'm taking advantage of. I'm attending Auburn University (online) in pursuit of a master's in aeronautical engineering. My wife and I celebrated our second anniversary in July. We're planning a trip to Europe next year to enjoy the sights before we have kids."

Derek Lee '09 says, "I've been volunteering at a church, teaching ESL to new Chinese immigrants. I work at MassDOT in its research and materials lab."

Dhruv Sarin '09 shares, "I've had quite a ride since I left WPI. Worked for Harvard Medical School pushing out papers and patents, and am currently a first-year medical student at the Medical College of Wisconsin."

Ryan Marinis '07 (MS ME), '09 (PhD) writes to say, "I've recently switched organizations within Sandia National Laboratories, joining the Energetic Materials Dynamic and Reactive Sciences organization, where I am researching initiation and output of explosives. Aside from that I've been gradually making my way down the Colorado Trail by mountain bike."

Jason Ogasian '09 began his career at General Dynamics in Pittsfield, Mass. He married his girlfriend, Bethany Flagg, in June 2011. "After an exciting honeymoon in Alaska and a month of packing, we moved to San Jose, Calif., where I work for General Dynamics as a reverse engineer."

Patrick Gemme '09 tells us, "I'm a technical services engineer at Holy Cross, responsible for wireless on the entire campus. I set up a thin client solution to help save 60 percent on many new computers. I've been a part of Open Security Foundation (helping import new data loss incidents from state FOIA requests). I have two children and live in Worcester with my wonderful wife."

Elizabeth Ellis '09 teaches high school chemistry in Springfield, Mass.

Caitlin Macko '09 and **Virgil Vaillancourt '06, '07 (MS ME)** became engaged in June 2011 and are planning a spring 2012 wedding in Connecticut.

Erik Brechun '09 tells us, "I've been working for Raytheon in Newport, R.I., as a signal processing engineer, contracting with the Navy at Pearl Harbor and then Andros Island, Bahamas, working on submarine sensor systems. My wife and I have traveled extensively across the Caribbean and are expecting our first child at Christmastime."

Joshua Dick '09 shares the following: "This summer, I went on a 10-day trip to Israel through the Birthright Israel organization and saw many famous and historic sites throughout the country. What an amazing place! This past weekend, I went

[tandem] skydiving for the first time! The scariest part was the paperwork I had to sign before jumping."

Christopher Schlichting '10 (MS MFE) tells us, "After finishing my master's, I returned to Germany to work for MAHLE, a worldwide automotive supplier. Currently, I'm working on a project in Tianjin, China, for four months, supporting the installation of a new assembly line. I get to travel a lot, visiting sub-suppliers in Shanghai and Beijing."

Taylor Esformes '10 shares her news: "In the past year, I got married twice—once in Worcester and once in Miami—but to the same person both times! I also started my own tutoring business, Mr. Physics Tutoring, teaching kids the skills they need for math, science, and the SATs. Also discovered that the research I did for my MQP is going to be published in a scholarly journal, so I'm going to have my first co-author credit! Hoping to go to grad school soon, but for now I'm happy to be self-employed, busy, and newly married!"

Dan Sacco '10 recently began working as a systems engineer for Siemens Healthcare Diagnostics in Flanders, N.J., working with the R&D group.

Mike Ghizzoni '10 works at Aras Corp. as a software solutions engineer and lives in Lowell, Mass. "I got rid of my old college car and am financing a new 2011 Kia Forte—awesome to have a 6-speed. My girlfriend and I are enjoying anime conventions, salsa and swing lessons, bowling, and a massage class. All my friends are getting married and having children. I must be getting old. If all goes well, I'll be popping the question myself in a year or so."

Andrew Bartley '10 writes, "I've been steadily chipping away at my MBA (part time) at WPI, and serving as president of Theta Chi's Alumni Association. I have switched from biotech, my undergraduate field, to the surprisingly exciting IT industry. I am now an IT systems admin at EMC. I'll be moving to Framingham next year in order to be closer to my new job while still staying close to my alma mater."

Lianne Elsner '10 (MS CS) and her husband, Nathan Poisson, live in Hudson, N.H., with their cat, Rayne. "I was among the first to be inducted into Upsilon Pi Epsilon in May of 2011 by my undergraduate alma mater, Rhode Island College."

Joseph Cotnoir '10 writes, "Since graduation, I got a full-time position on campus. I am an instructional technology support specialist in the ATC's Technology for Teaching and Learning Center."

Devin Kelly '10, '11 (MS ECE) tells us, "I went to the 2011 Bonaroo music festival in Manchester, Tenn. My friends and I drove from Worcester and camped for four days. I just started working at MIT Lincoln Laboratory, doing research in the Wideband Tactical Networks Group."

▶29 **Renee Walker '10** was on the cover of the Spring 2011 issue of *Woman Engineer*. In a profile of her career with EMC Corp., she credits her internship with helping her gain experience and insight on the industry.

Sujiken Answer

See puzzle on page 86

7								
6	3							
1	2	5						
5	4	1	9					
9	6	3	7	8				
2	7	8	5	4	1			
8	9	2	3	6	5	4		
3	1	6	4	9	7	8	2	
4	5	7	8	1	2	9	3	6

Majed Almejmaj '10 (MS FPE) shares the following: "I loved WPI so much that I decided to stay here for my PhD. So I am jumping from one lab to another with an occasional stop by the Goat's Head."

Chris Jeznach '10 has moved back to Massachusetts and is working for Spirol International."

Lillian Clark '11 reports, "I just started work on my master's degree at UMass Amherst in environmental engineering. Also doing water quality research and modeling of the Wachusett Reservoir as a research assistant in the Water Resources Group. I miss everyone at WPI!"

Colbert Sesanker '11 writes, "I'm taking a gap year before grad school and it's great. Working as a programmer at UConn Health Center."

Skyler Whorton '11 says, "With my freshly minted diploma in hand, I completed a summer internship at a local software consulting company, which gave me valuable software modeling experience for my entry as a graduate student at WPI this fall. I'm pursuing an MS in computer science, working with Professor Neil Heffernan. It's exciting that I get to remain right in the heart of the WPI community!"

▶30 **Richard Emberley '11** received the Howe-Walker Award from the Boston Society of Civil Engineers. He was honored for his exceptional service during his two years as president of the WPI student chapter of the ASCE.

Benjamin R Chadwick '31 (Lambda Chi Alpha)
George T Barks '32
Lester N Linter '32
William A Slagle '33
Roman J "Joe" Koziol '34
William P Mitnik '34
Howard E Stockwell '34 (Lambda Chi Alpha)
John R Brand '36 (Phi Sigma Kappa)
F Kenwood Jones '36 (Sigma Phi Epsilon)
Charles R "Mike" Michel '37, Trustee Emeritus
Edward W Armstrong '38 (Sigma Phi Epsilon)
Richard M Elliot '38 (Phi Gamma Delta)
Philip K Hathaway '38 (Lambda Chi Alpha)
Henry F Howe '38
Howard J Blanchard '39
David McEwan '39 (Phi Gamma Delta)
Edward J Roszko '39 (Alpha Tau Omega)
Richard B Wilson '39 (Phi Sigma Kappa)
Donald S Chatfield '40 (Theta Chi)
Robert W Hewey '40
Norman U LaLiberte '40
Warren S Bradford '41 (Sigma Alpha Epsilon)
Alexander Davidson '41
Theodore J Sydor '41
Delbert A Betterley '42 (Lambda Chi Alpha)
Haskell Ginns '42
Robert H Grant '42 (Phi Sigma Kappa)
Norman A Kerr '42 (Alpha Tau Omega)
Carl I Benson '43
Fred S Moulton '44 (Phi Sigma Kappa)
Robert F Petersen '44 (Phi Gamma Delta)
Warner H Tabor '44 (Alpha Tau Omega)
Donald R Whitney '44 (Alpha Tau Omega)
John C Bayer '45 (Alpha Tau Omega)
Frederick J Levitsky '45
Clayton R Adams '46
John F Brown '46
William G Daly '46 (Phi Kappa Theta)
Robert B Davis '46
Richard L Perkins '46
Edward J Waranowicz '46
Elmer S Sachse '46
Leslie Flood '47 (Phi Gamma Delta)
Edward C Perry '47
Robert E Beauregard '48 (Phi Kappa Theta)
Guy W Burr '48
Charles F Jones '48
Charles A Woodman '48
Robert M Lerner '48
Chester L Anderson '49 (Sigma Phi Epsilon)
Thaddeus S Bonczyk '49
Edmund R Knight '49 (Alpha Tau Omega)
Donald Taylor '49 Trustee Emeritus
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David L Brumback '50 (Phi Gamma Delta)
William G Collings '50 (Phi Sigma Kappa)
Robert L Molson '50
Edmund L Nichols '50
Theodore A Mellor '51
Alan E Wills '51
Donald H Adams '52
Richard G Bennett '52 (Sigma Alpha Epsilon)
Walter J Connor '52
Edward A Hjerpe '52 (Phi Gamma Delta)
Kenneth T Lang '52 (Sigma Alpha Epsilon)
Edmund M Luzgauskas '52
Robert R Nuttall '52
Alfred C Bafaro '53
Harry W Brown '53 (Phi Sigma Kappa)
Charles E Horne '53 (Lambda Chi Alpha)
Eugene J Dragon '54
George H Kay '54 (Sigma Phi Epsilon)
Richard L Merowitz '54
Gilbert K Nersesian '54
Edward L Nelson '55
Philip E Olson '55 (Sigma Phi Epsilon)
Robert C Stempel '55 Trustee Emeritus
Ernest Bernstein '56
Henry J Dumas '56 (Alpha Tau Omega)
Frederick F Hering '56
Kevin E Joyce '56 (Phi Kappa Theta)
Eric Ostergaard '56
Neil W Armstrong '57
Robert G Frantello '57
Frank Furman '57
Charles B Cushman '58
Gustavus R Ide '58 (SIM)
Arthur T Human '59
Robert B Massad '59
Joshua C "Jay" Alpern '60 (Alpha Epsilon Pi)
Martin R Beck '60 (Sigma Alpha Epsilon)
Stanley J Strychaz '62 (Phi Kappa Theta)
Steven G Sutker '65
Joseph G Acker '66 (Phi Gamma Delta)
Richard E Makohon '68 (Alpha Tau Omega)
William A Blouins '69 (SIM)
David W Clark '69
Alvin B Pauly '69 (Alpha Tau Omega)
Robert W Smith '69
Michael T Moylan '70
Richard A Arena '71 (Lambda Chi Alpha)
Robert A Childs '71 (Alpha Tau Omega)
Steven P Dexter '71
Ernest A Evancic '71
Charles H Bacon '72
Carl F Johnson '72
Warren V Prescott '72
Richard M Filipetti '73 (Phi Gamma Delta)
Armand R Catalani '74
Lawrence E Potter '76 (SIM)
Walter J Peterson '77 (Phi Sigma Kappa)
Robert A Bryant '79
Francis J Martin '79
Craig R Auito '80
Michael A Bowen '80
John F Connon '82
Richard K Anderson '83
Scott A Cote '86 (Sigma Alpha Epsilon)
Anne-Marie Arnold '92 (MNS)
Cpt Laura A (Matelki) Eberts '04
Omar P Pinango '06 (Phi Sigma Kappa)

FACULTY, STAFF, AND FRIENDS

Christopher Sotak '95 (MBA), Professor of Biomedical Engineering
Marie "Ma Fe" former ATO Cook
Olive Kunholm longtime Tech Old Timers member and widow of David A Kunholm '40

Complete obituaries can usually be found through newspapers, websites, legacy.com, and similar indexes. WPI will share details on the "completed careers" of friends and classmates, if available. To request further information, contact alumni-editor@wpi.edu or call 508-831-5998.

Sujiken

By George Heineman

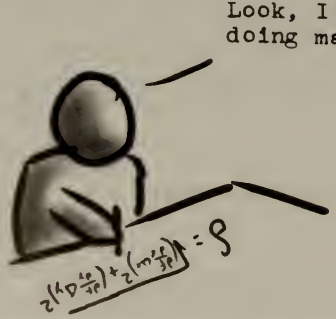
Place digits from 1 to 9 in the triangular grid such that:

1. No digit repeats in any row, column, or diagonal
2. No digit repeats in any of the outlined boxes and triangles

PUZZLE ANSWER ON PAGE 84

Awkward
ENGINEER

On the rare occasions I use calculus at work, I get excited and think that maybe, college was worth the money



By Sam Feller '07

WPINDEX SOURCE MATERIAL

#1 Seventy Years of WPI H F Taylor, #2, 11,12, 13, 20, 21 28, 29 WPI 2011Accreditation Report; #3, 4 ScienceDaily.com, #5 Wikipedia; #6 Tech Bible, #7 Chadwick, Martin, Bailey Research; #8 International Business Times, #9, 10 Pew Internet Project, #14, 22, 23 WPI Admissions Office; #15, 16, 17 American Association of Museums, #18, 19 Sustainable Endowment Institute; #24, 26 US Pirg; "Study on American Roadways" #25 American Society of Civil Engineers, #27 TheHill.com; #30, 31, 32 National Golf Foundation #33 WPI Annual Fund Office; #34 American Goat Society.

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The Next Generation

After 32 years in higher education, Albert Soloway '48, Dean Emeritus at Ohio State University, has concerns about the future of American education.

BY ALBERT SOLOWAY '48

STEPHEN WILDE

WHEN COMPLETING MY DOCTORATE in chemistry from the University of Rochester, I thought I'd only teach if I had no new research ideas. It was an arrogant thought since I've spent the bulk of my career – 32 years – in higher education. In retrospect, it is understandable that I gravitated toward the university. My father and mother, Russian Jewish immigrants, greatly valued education, something they were both denied in Russia. Instead, they put their three children through college. They were very giving people. My father, a hero of the Great Depression, was a poor grocer who worked 75-80 hours per week. He often provided food for out-of-work neighbors. Most people paid him back when able.

My mother also valued intellectual pursuits, as well as cultural. She attended the Worcester Philharmonic concerts regularly, and was vitally interested in political activities, marching for women's suffrage in the 1920s. Her illness and death from breast cancer when I was 16 motivated me to major in chemistry and to work in cancer research.

The idea of helping others, then, was ingrained in me at a young age. Teaching and doing research at a college was a very logical direction. However, my initial attempt was thwarted by religious bias. After completing a two-year postdoctoral NIH fellowship at Sloan-Kettering Institute for Cancer Research, I applied for an assistant professor position in the chemistry department at the University of North Carolina. I filled out an application which asked my religion and my mother's maiden name. I responded that I was Jewish and my mother's maiden name was Raphaelson. I never heard from them, and can only infer as to why. Thirteen years would pass before I obtained my first full-time academic appointment as Associate Professor in the College of Pharmacy at Northeastern University.

From the start, I enjoyed the twin challenges of teaching and research. My research background was much further developed since I'd spent 10 prior years working on a new therapy for malignant brain tumors with the chief of neurosurgery at Massachusetts General Hospital.

My only teaching experience, however, was providing an evening graduate course in biochemistry. I found teaching very demanding, but satisfying, especially when I was able to help a young person sort out career options. It was also very gratifying to establish a program with high academic standards.

I was looking for no further career changes; I

thought I had found my niche in life. However, when the dean became incapacitated, the university asked me to become acting dean, which I accepted, knowing it was a temporary position. But when the dean died, I was offered the position.

I decided to accept the deanship, hoping I could create a more positive environment for students and faculty. I served two years as dean before being offered a comparable position at Ohio State University.

The main purpose of college is educating a well-rounded, adaptable generation of students capable of adjusting to change. Everything else is peripheral to that mission.

Leaving Northeastern and Boston was not a simple decision. My wife, Barbara, was enrolled in an MBA program and our daughter, Madeleine, was at Massachusetts College of Art. She said to me, "Dad, children are supposed to leave parents not parents leave their children."

Ohio State was a good place for me. I had great support from the provost and president as well as an excellent faculty. I served 11 years as dean and 10 more when returning to the faculty. Approaching 73, I decided to retire, wanting to write a book on what was happening in our universities and, subsequently, to write scientific papers on the biochemical bases of hormonally induced cancers, Parkinson's disease, macular degeneration, and chemical addictions.

In 2006 I published the book I wanted to write. Titled *Failed Grade: The Corporatization and Decline of Higher Education in America*, the book's major thrust was that the corporate structure being forced upon universities was ill suited for higher education. I hoped my book and others like it would provoke serious national discussion.

They haven't. The corporate structure is now fully ensconced with ballooning administrative costs, commercially driven research, students viewed as customers with retention focused on tuition dollars, rampant grade inflation, and tenure under attack. Tuition has been double the national inflation rate for 25 years now, caused not by faculty salaries but by rising administrative costs coupled with new construction costs. Many students are saddled with enormous debts after graduation. University presidents increasingly are selected for their fundraising prowess and not their academic accomplishments.

The real "customer" of higher education is not the student but American society that employs these students after matriculation. Universities that fail to maintain high standards erode public trust and put into serious question the value of a traditional college degree versus something taken online.

The main purpose of college is educating a well-rounded, adaptable generation of students capable of adjusting to change. Everything else is peripheral to that mission. My worry is that standards are being lowered and the failed social policies affecting primary and secondary education will soon be replicated in colleges. Will we then witness political intervention with questionable results? Higher education has been the crown jewel of the American educational system for more than a century; I fervently hope it remains so in the coming decades.

Albert Soloway '48, Dean Emeritus of the College of Pharmacy at Ohio State University, has authored more than 200 scientific papers and is founder and former president of the International Society for Neutron Capture Therapy. His 2006 book, Failed Grade, raises provocative questions about the state of higher education in America.

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